

10/596,007

Meaning of unusual acronyms or initialisms:

barium sulphate or barium sulfate

Identify the novelty:

Please search claims 1-39 including binder, barium sulfate, dispersant, and crystallization inhibitor. carboxylic acid is elected species for crystallization inhibitor (A = C).

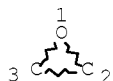
10/596,007

=> d que l4
L4 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 7727-43-7/RN

=> d que l7
L7 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 77-92-9/RN

=> d que l8
L8 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 56486-71-6/RN

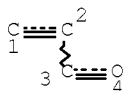
=> d que stat l12
L9 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
L10 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

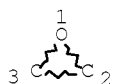
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
L12 69317 SEA FILE=REGISTRY SSS FUL (L9 AND L10)

100.0% PROCESSED 3011562 ITERATIONS
SEARCH TIME: 00.00.03

69317 ANSWERS

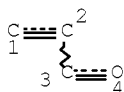
=> d que stat l14
L9 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
 L10 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
 L12 69317 SEA FILE=REGISTRY SSS FUL (L9 AND L10)
 L14 7138 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L12 AND SI/ELS

=> d que nos 176

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L1      1 SEA FILE=HCAPLUS SPE=ON  ABB=ON  PLU=ON  US2007-596007/APPS
L4      1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  7727-43-7/RN
L7      1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  77-92-9/RN
L9      STR
L10     STR
L12     69317 SEA FILE=REGISTRY SSS FUL (L9 AND L10)
L14     7138 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  L12 AND SI/ELS
L15     QUE  SPE=ON  ABB=ON  PLU=ON  POPPE, A?/AU,AUTH
L16     QUE  SPE=ON  ABB=ON  PLU=ON  MIKOLAJETZ, D?/AU,AUTH
L17     QUE  SPE=ON  ABB=ON  PLU=ON  WESTHOFF, E?/AU,AUTH
L18     QUE  SPE=ON  ABB=ON  PLU=ON  HARDINGHAUS, F?/AU,AUTH
L19     QUE  SPE=ON  ABB=ON  PLU=ON  PARK, J?/AU,AUTH
L20     QUE  SPE=ON  ABB=ON  PLU=ON  KOHLER, K?/AU,AUTH
L21     QUE  SPE=ON  ABB=ON  PLU=ON  STAHL, R?/AU,AUTH
L22     QUE  SPE=ON  ABB=ON  PLU=ON  GLENDE, D?/AU,AUTH
L23     QUE  SPE=ON  ABB=ON  PLU=ON  KOEHLER, K?/AU,AUTH
L26     QUE  SPE=ON  ABB=ON  PLU=ON  COMBIN? OR COMBN OR MIXTURE
      OR ADMIX? OR MIXED OR MIXING OR BLEND? OR MIXT?
L27     QUE  SPE=ON  ABB=ON  PLU=ON  COMPOSITION OR CMPSN OR COMP
      OS?
L28     QUE  SPE=ON  ABB=ON  PLU=ON  FORMULAT?
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L29		QUE	SPE=ON	ABB=ON	PLU=ON	CURE OR CURING OR CURED
L30		QUE	SPE=ON	ABB=ON	PLU=ON	CURABLE
L31		QUE	SPE=ON	ABB=ON	PLU=ON	BINDER
L32		QUE	SPE=ON	ABB=ON	PLU=ON	(BARIUM(1W) (SULFATE OR SULPHATE)) OR BASO4
L33		QUE	SPE=ON	ABB=ON	PLU=ON	DEAGGLOMERAT? OR (DE(1W)AGGLOMERAT?)
L34		QUE	SPE=ON	ABB=ON	PLU=ON	DISPERS?
L35		QUE	SPE=ON	ABB=ON	PLU=ON	AGGLOMER? OR REAGGLOMER?
L36		QUE	SPE=ON	ABB=ON	PLU=ON	CRYST?
L37		QUE	SPE=ON	ABB=ON	PLU=ON	ANTAGON? OR INHIBIT? OR PROHIBIT? OR PREVENT? OR DIMINISH? OR REDUC? OR IMPED? OR DEPRESS? OR SUPPRESS? OR REPRESS? OR OBSTRUCT? OR RESTRICT? OR TERMINAT? OR BLOCK? OR STOP? OR RETARD? OR SLOW? OR DELAY? OR LIMIT? OR DECREAS? OR LOWER? OR LESSEN? OR MINIMIZE? OR MINIMIS? OR DISRUPT?
L38		QUE	SPE=ON	ABB=ON	PLU=ON	IMPAIR? OR HINDER?
L39		QUE	SPE=ON	ABB=ON	PLU=ON	CARBOXYLIC
L40		QUE	SPE=ON	ABB=ON	PLU=ON	CITRIC
L41		QUE	SPE=ON	ABB=ON	PLU=ON	PHOSPHORIC OR PHOSPHINIC
L42		QUE	SPE=ON	ABB=ON	PLU=ON	SULFINIC OR SULPHINIC OR SULFONIC OR SULPHONIC
L43		QUE	SPE=ON	ABB=ON	PLU=ON	EPOXIDE
L44		QUE	SPE=ON	ABB=ON	PLU=ON	?SILAN? OR ORAGANOSILAN? OR CARBOSILAN? OR ?SILYL?
L45		QUE	SPE=ON	ABB=ON	PLU=ON	ELECTROSTATIC?
L46		QUE	SPE=ON	ABB=ON	PLU=ON	OSMOTIC?
L47		QUE	SPE=ON	ABB=ON	PLU=ON	?CATALY?
L48		QUE	SPE=ON	ABB=ON	PLU=ON	RADIATION
L49		QUE	SPE=ON	ABB=ON	PLU=ON	BLOCK? OR SHIELD?
L50		QUE	SPE=ON	ABB=ON	PLU=ON	PHOSPHONIC
L51		QUE	SPE=ON	ABB=ON	PLU=ON	CRYSTALLIZATION+PFT, OLD, NEW/CT
L52		QUE	SPE=ON	ABB=ON	PLU=ON	"DISPERSING AGENTS"+PFT, OLD, NEW, NT/CT
L53		QUE	SPE=ON	ABB=ON	PLU=ON	"CARBOXYLIC ACIDS"+PFT, OLD, NEW/CT
L54	3047	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L14
L55	17474	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L4
L56	2	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L54 AND L55
L57	2	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L54 AND L32
L58	9756	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L55 AND (L26 OR L27 OR L28)
L60	94	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L58 AND (L33 OR L35)
L61	13	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L60 AND L31
L62	31	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L60 AND (L34 OR L52)
L63	6	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L61 AND L62
L64	89493	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L7
L65	6	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L60 AND L64
L66	127	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L58 AND L64
L67	24	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L66 AND (L34 OR L52)
L68	38	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	(L56 OR L57) OR L61 OR L63 OR L65 OR L67
L69	38	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L68 AND ((L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50) OR (L51 OR L52 OR L53))
L70	38	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	(L68 OR L69)
L71	4	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L70 AND (L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23)

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L72 0 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L1 NOT L71
 L73 4 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON (L71 OR L72)
 L74 34 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L70 NOT L73
 L76 34 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L74 AND (L4 OR L32)

=> d que 1103

L15 QUE SPE=ON ABB=ON PLU=ON POPPE, A?/AU,AUTH
 L16 QUE SPE=ON ABB=ON PLU=ON MIKOLAJETZ, D?/AU,AUTH
 L17 QUE SPE=ON ABB=ON PLU=ON WESTHOFF, E?/AU,AUTH
 L18 QUE SPE=ON ABB=ON PLU=ON HARDINGHAUS, F?/AU,AUTH
 L19 QUE SPE=ON ABB=ON PLU=ON PARK, J?/AU,AUTH
 L20 QUE SPE=ON ABB=ON PLU=ON KOHLER, K?/AU,AUTH
 L21 QUE SPE=ON ABB=ON PLU=ON STAHL, R?/AU,AUTH
 L22 QUE SPE=ON ABB=ON PLU=ON GLENDE, D?/AU,AUTH
 L23 QUE SPE=ON ABB=ON PLU=ON KOEHLER, K?/AU,AUTH
 L26 QUE SPE=ON ABB=ON PLU=ON COMBIN? OR COMBN OR MIXTURE
 OR ADMIX? OR MIXED OR MIXING OR BLEND? OR MIXT?
 L27 QUE SPE=ON ABB=ON PLU=ON COMPOSITION OR CMPSN OR COMP
 OS?
 L28 QUE SPE=ON ABB=ON PLU=ON FORMULAT?
 L29 QUE SPE=ON ABB=ON PLU=ON CURE OR CURING OR CURED
 L30 QUE SPE=ON ABB=ON PLU=ON CURABLE
 L31 QUE SPE=ON ABB=ON PLU=ON BINDER
 L32 QUE SPE=ON ABB=ON PLU=ON (BARIUM(1W)(SULFATE OR SULPH
 ATE)) OR BASO4
 L33 QUE SPE=ON ABB=ON PLU=ON DEAGGLOMERAT? OR (DE(1W)AGGL
 OMERAT?)
 L34 QUE SPE=ON ABB=ON PLU=ON DISPERS?
 L35 QUE SPE=ON ABB=ON PLU=ON AGGLOMER? OR REAGGLOMER?
 L36 QUE SPE=ON ABB=ON PLU=ON CRYST?
 L37 QUE SPE=ON ABB=ON PLU=ON ANTAGON? OR INHIBIT? OR PROH
 IBIT? OR PREVENT? OR DIMINISH? OR REDUC? OR IMPED? OR DEP
 RESS? OR SUPPRESS? OR REPRESS? OR OBSTRUCT? OR RESTRICT?
 OR TERMINAT? OR BLOCK? OR STOP? OR RETARD? OR SLOW? OR DE
 LAY? OR LIMIT? OR DECREAS? OR LOWER? OR LESSEN? OR MINIMI
 Z? OR MINIMIS? OR DISRUPT?
 L38 QUE SPE=ON ABB=ON PLU=ON IMPAIR? OR HINDER?
 L39 QUE SPE=ON ABB=ON PLU=ON CARBOXYLIC
 L40 QUE SPE=ON ABB=ON PLU=ON CITRIC
 L41 QUE SPE=ON ABB=ON PLU=ON PHOSPHORIC OR PHOSPHINIC
 L42 QUE SPE=ON ABB=ON PLU=ON SULFINIC OR SULPHINIC OR SUL
 FONIC OR SULPHONIC
 L43 QUE SPE=ON ABB=ON PLU=ON EPOXIDE
 L44 QUE SPE=ON ABB=ON PLU=ON ?SILAN? OR ORAGANOSILAN? OR
 CARBOSILAN? OR ?SILYL?
 L45 QUE SPE=ON ABB=ON PLU=ON ELECTROSTATIC?
 L46 QUE SPE=ON ABB=ON PLU=ON OSMOTIC?
 L47 QUE SPE=ON ABB=ON PLU=ON ?CATALY?
 L48 QUE SPE=ON ABB=ON PLU=ON RADIATION
 L49 QUE SPE=ON ABB=ON PLU=ON BLOCK? OR SHIELD?
 L50 QUE SPE=ON ABB=ON PLU=ON PHOSPHONIC
 L77 QUE SPE=ON ABB=ON PLU=ON (G1558 OR G1581)/PLE
 L78 QUE SPE=ON ABB=ON PLU=ON (R05257 OR F83 OR F84 OR F85
 OR F86 OR F87)/PLE
 L79 QUE SPE=ON ABB=ON PLU=ON G0260/PLE
 L81 1 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON 88364/DCSE
 L82 8978 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L81/DCR OR DCR-88364/DCR
 OR R01739/DCN
 L83 5950 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON 1739/DRN

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L84      9098 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  (L82 OR L83)
L97      4623 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L77 AND L78 AND L79
L98      54 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L84 AND L97
L99      53 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L98 AND (L26 OR L27 OR
L100     20 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L99 AND ((L29 OR L30) OR
HARDEN?/BIX,BIEX,ABEX,TT)
L101     20 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L100 AND (L26 OR L27 OR
L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR
L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR
L46 OR L47 OR L48 OR L49 OR L50)
L102     0 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L101 AND (L15 OR L16 OR
L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23)
L103     20 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L101 NOT L102

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=> d his l112

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(FILE 'MEDLINE, BIOSIS, EMBASE, CABA, AGRICOLA, IFICDB, DRUGU, VETU'
ENTERED AT 10:46:31 ON 12 JAN 2011)
L112     0 S L110 NOT L111

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=> d que nos l112

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L4        1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  7727-43-7/RN
L15       QUE  SPE=ON  ABB=ON  PLU=ON  POPPE, A?/AU,AUTH
L16       QUE  SPE=ON  ABB=ON  PLU=ON  MIKOLAJETZ, D?/AU,AUTH
L17       QUE  SPE=ON  ABB=ON  PLU=ON  WESTHOFF, E?/AU,AUTH
L18       QUE  SPE=ON  ABB=ON  PLU=ON  HARDINGHAUS, F?/AU,AUTH
L19       QUE  SPE=ON  ABB=ON  PLU=ON  PARK, J?/AU,AUTH
L20       QUE  SPE=ON  ABB=ON  PLU=ON  KOHLER, K?/AU,AUTH
L21       QUE  SPE=ON  ABB=ON  PLU=ON  STAHL, R?/AU,AUTH
L22       QUE  SPE=ON  ABB=ON  PLU=ON  GLENDE, D?/AU,AUTH
L23       QUE  SPE=ON  ABB=ON  PLU=ON  KOEHLER, K?/AU,AUTH
L26       QUE  SPE=ON  ABB=ON  PLU=ON  COMBIN? OR COMBN OR MIXTURE
OR ADMIX? OR MIXED OR MIXING OR BLEND? OR MIXT?
L27       QUE  SPE=ON  ABB=ON  PLU=ON  COMPOSITION OR CMPSN OR COMP
OS?
L28       QUE  SPE=ON  ABB=ON  PLU=ON  FORMULAT?
L29       QUE  SPE=ON  ABB=ON  PLU=ON  CURE OR CURING OR CURED
L30       QUE  SPE=ON  ABB=ON  PLU=ON  CURABLE
L31       QUE  SPE=ON  ABB=ON  PLU=ON  BINDER
L32       QUE  SPE=ON  ABB=ON  PLU=ON  (BARIUM(1W)(SULFATE OR SULPH
ATE)) OR BASO4
L33       QUE  SPE=ON  ABB=ON  PLU=ON  DEAGGLOMERAT? OR (DE(1W)AGGL
OMERAT?)
L34       QUE  SPE=ON  ABB=ON  PLU=ON  DISPERS?
L35       QUE  SPE=ON  ABB=ON  PLU=ON  AGGLOMER? OR REAGGLOMER?
L106     15396 SEA L4
L108     1356 SEA (L106 OR L32) AND (L26 OR L27 OR L28) AND L34
L109     67 SEA L108 AND (L33 OR L35)
L110     3 SEA L109 AND L31 AND ((L29 OR L30) OR HARDEN?)
L111     3 SEA L110 AND (L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR
L22 OR L23)
L112     0 SEA L110 NOT L111

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=> d his l120

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(FILE 'HCAPLUS, WPIX, PASCAL, JAPIO, INSPEC, COMPENDEX, APOLLIT, RAPRA,
CEABA-VTB, BIOENG, BIOTECHDS, DRUGB, VETB, LIFESCI, SCISEARCH, CONFSCI,

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DISSABS, RDISCLOSURE' ENTERED AT 10:51:21 ON 12 JAN 2011)

L120 3 S L118 NOT L119

FILE 'STNGUIDE' ENTERED AT 11:01:47 ON 12 JAN 2011

=> d que 1120

L15	QUE	SPE=ON	ABB=ON	PLU=ON	POPPE, A?/AU,AUTH
L16	QUE	SPE=ON	ABB=ON	PLU=ON	MIKOLAJETZ, D?/AU,AUTH
L17	QUE	SPE=ON	ABB=ON	PLU=ON	WESTHOFF, E?/AU,AUTH
L18	QUE	SPE=ON	ABB=ON	PLU=ON	HARDINGHAUS, F?/AU,AUTH
L19	QUE	SPE=ON	ABB=ON	PLU=ON	PARK, J?/AU,AUTH
L20	QUE	SPE=ON	ABB=ON	PLU=ON	KOHLER, K?/AU,AUTH
L21	QUE	SPE=ON	ABB=ON	PLU=ON	STAHL, R?/AU,AUTH
L22	QUE	SPE=ON	ABB=ON	PLU=ON	GLEND, D?/AU,AUTH
L23	QUE	SPE=ON	ABB=ON	PLU=ON	KOEHLER, K?/AU,AUTH
L26	QUE	SPE=ON	ABB=ON	PLU=ON	COMBIN? OR COMBN OR MIXTURE
					OR ADMIX? OR MIXED OR MIXING OR BLEND? OR MIXT?
L27	QUE	SPE=ON	ABB=ON	PLU=ON	COMPOSITION OR CMPSN OR COMP
					OS?
L28	QUE	SPE=ON	ABB=ON	PLU=ON	FORMULAT?
L29	QUE	SPE=ON	ABB=ON	PLU=ON	CURE OR CURING OR CURED
L30	QUE	SPE=ON	ABB=ON	PLU=ON	CURABLE
L31	QUE	SPE=ON	ABB=ON	PLU=ON	BINDER
L32	QUE	SPE=ON	ABB=ON	PLU=ON	(BARIUM(1W)(SULFATE OR SULPH
					ATE)) OR BASO4
L33	QUE	SPE=ON	ABB=ON	PLU=ON	DEAGGLOMERAT? OR (DE(1W)AGGL
					OMERAT?)
L34	QUE	SPE=ON	ABB=ON	PLU=ON	DISPERS?
L35	QUE	SPE=ON	ABB=ON	PLU=ON	AGGLOMER? OR REAGGLOMER?
L36	QUE	SPE=ON	ABB=ON	PLU=ON	CRYST?
L37	QUE	SPE=ON	ABB=ON	PLU=ON	ANTAGON? OR INHIBIT? OR PROH
					IBIT? OR PREVENT? OR DIMINISH? OR REDUC? OR IMPED? OR DEP
					RESS? OR SUPPRESS? OR REPRESS? OR OBSTRUCT? OR RESTRICT?
					OR TERMINAT? OR BLOCK? OR STOP? OR RETARD? OR SLOW? OR DE
					LAY? OR LIMIT? OR DECREAS? OR LOWER? OR LESSEN? OR MINIMI
					Z? OR MINIMIS? OR DISRUPT?
L38	QUE	SPE=ON	ABB=ON	PLU=ON	IMPAIR? OR HINDER?
L39	QUE	SPE=ON	ABB=ON	PLU=ON	CARBOXYLIC
L40	QUE	SPE=ON	ABB=ON	PLU=ON	CITRIC
L41	QUE	SPE=ON	ABB=ON	PLU=ON	PHOSPHORIC OR PHOSPHINIC
L42	QUE	SPE=ON	ABB=ON	PLU=ON	SULFINIC OR SULPHINIC OR SUL
					FONIC OR SULPHONIC
L43	QUE	SPE=ON	ABB=ON	PLU=ON	EPOXIDE
L44	QUE	SPE=ON	ABB=ON	PLU=ON	?SILAN? OR ORAGANOSILAN? OR
					CARBOSILAN? OR ?SILYL?
L45	QUE	SPE=ON	ABB=ON	PLU=ON	ELECTROSTATIC?
L46	QUE	SPE=ON	ABB=ON	PLU=ON	OSMOTIC?
L47	QUE	SPE=ON	ABB=ON	PLU=ON	?CATALY?
L48	QUE	SPE=ON	ABB=ON	PLU=ON	RADIATION
L49	QUE	SPE=ON	ABB=ON	PLU=ON	BLOCK? OR SHIELD?
L50	QUE	SPE=ON	ABB=ON	PLU=ON	PHOSPHONIC
L113	29647	SEA	L32 AND (L26 OR L27 OR L28)		
L114	774	SEA	L113 AND L31 AND L34		
L115	14	SEA	L114 AND (L33 OR L35)		
L116	5	SEA	L115 AND ((L29 OR L30) OR HARDEN?)		
L117	5	SEA	L116 AND (L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR		
			L33 OR L34 OR L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR		
			L42 OR L43 OR L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50)		
L118	5	SEA	(L116 OR L117)		
L119	2	SEA	L118 AND (L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR		

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L120 L22 OR L23)
 3 SEA L118 NOT L119

=> dup rem l76 l103 l112 l120
L112 HAS NO ANSWERS
DUPLICATE IS NOT AVAILABLE IN 'RDISCLOSURE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
FILE 'HCAPLUS' ENTERED AT 11:03:29 ON 12 JAN 2011
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FILE 'WPIX' ENTERED AT 11:03:29 ON 12 JAN 2011
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PROCESSING COMPLETED FOR L76
PROCESSING COMPLETED FOR L103
PROCESSING COMPLETED FOR L112
PROCESSING COMPLETED FOR L120
L121 55 DUP REM L76 L103 L112 L120 (2 DUPLICATES REMOVED)
 ANSWERS '1-34' FROM FILE HCAPLUS
 ANSWERS '35-55' FROM FILE WPIX

=> file stnguide
FILE 'STNGUIDE' ENTERED AT 11:03:50 ON 12 JAN 2011
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jan 7, 2011 (20110107/UP).

=> fil hcap wpix
FILE 'HCAPLUS' ENTERED AT 11:04:04 ON 12 JAN 2011
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FILE 'WPIX' ENTERED AT 11:04:04 ON 12 JAN 2011
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=> d que l25
L25 QUE SPE=ON ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<20
 05 OR MY<2005 OR REVIEW/DT

=> s l121 and l25
'2005' NOT A VALID FIELD CODE
'2005' NOT A VALID FIELD CODE
L122 40 L121 AND L25

=> dup rem l122
PROCESSING COMPLETED FOR L122
L123 40 DUP REM L122 (0 DUPLICATES REMOVED)
 ANSWERS '1-27' FROM FILE HCAPLUS
 ANSWERS '28-40' FROM FILE WPIX

=> file stnguide
FILE 'STNGUIDE' ENTERED AT 11:04:50 ON 12 JAN 2011
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10/596,007

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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Jan 7, 2011 (20110107/UP).

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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, WPIX' - CONTINUE? (Y)/N:y

L123 ANSWER 1 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2009:707093 HCAPLUS Full-text

DOCUMENT NUMBER: 151:36629

TITLE: Barium sulfate-silicon-red
lead-based delay detonator
compositions for explosives

INVENTOR(S): Aube, Rejean

PATENT ASSIGNEE(S): Orica Explosives Technology Pty Ltd., Australia

SOURCE: Can., 38pp.; Chemical Indexing Equivalent to
137:249889 (WO)
CODEN: CAXXA4

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

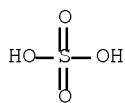
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2340523	C	20090602	CA 2001-2340523	20010309
CA 2340523	A1	20020909		<--
US 20030015267	A1	20030123	US 2001-895334	20010702 <--
WO 2002072504	A1	20020919	WO 2002-CA308	20020307 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002240749	A1	20020924	AU 2002-240749	20020307 <--
AU 2002240749	B2	20050224		
ZA 2003006414	A	20040818	ZA 2003-6414	20030818 <--
SE 2003002370	A	20031110	SE 2003-2370	20030904 <--
SE 524533	C2	20040824		
PRIORITY APPLN. INFO.:			CA 2001-2340523	A 20010309 <--
			WO 2002-CA308	W 20020307 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 11 Jun 2009

AB A delay composition for a detonator or delay device comprises a mixture of silicon and barium sulfate, and an amount of red lead in the range of about 3 to 15%, and preferably 6 to 12%, by weight of the mixture. The invention also relates to a delay element comprising a rigid metal tube containing the delay composition, and a delay device incorporating the delay element. Detonator delay comps. are composed of silicon 25-50, barium sulfate 40-60, and red lead (Pb304) 3-15 weight%, in addition to 0.2-0.6 weight% binder, selected from solvent-soluble polymers, silica, and swelling clays, preferably Na CM-cellulose. The BaSO4 and silicon particles have sp. surface areas of 0.8 and 6-8 m2/g, resp.; Pb304 is present in particle sizes of 1-3 μ . The binder is selected to be able to form the delay composition particles into agglomerations of granules. The composition is incorporated into a detonator or delay device comprising a hollow metal tube, composed of zinc, aluminum, steel, and brass, with a burning delay of 2-9 s.

IPCI C06B0033-12 [I,A]; C06C0005-04 [I,A]; C06C0005-06 [I,A]; C06C0007-00 [I,A]
 IPCR C06C0005-00 [I,C]; C06C0005-04 [I,A]; C06B0033-00 [I,C]; C06B0033-12
 [I,A]; C06C0005-06 [I,A]; C06C0007-00 [I,C]; C06C0007-00 [I,A]
 CC 50-4 (Propellants and Explosives)
 ST pyrotechnic delay detonator red lead silicon; barium
sulfate silicon pyrotechnic delay detonator
 IT Detonators
 (barium sulfate-silicon-red lead-based
delay detonator compos. for explosives)
 IT Pyrotechnic compositions
 (delay; barium sulfate-silicon-red
 lead-based delay detonator compos. for explosives)
 IT 1314-41-6, Lead oxide (Pb3O4) 7440-21-3, Silicon, uses
7727-43-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (barium sulfate-silicon-red lead-based
delay detonator compos. for explosives)
 IT 7440-66-6, Zinc, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (detonator casing; barium sulfate-silicon-red
 lead-based delay detonator compos. for explosives)
 IT 9004-32-4
 RL: NUU (Other use, unclassified); TEM (Technical or engineered material
 use); USES (Uses)
 (tylose C600, binder; barium sulfate
 -silicon-red lead-based delay detonator compos. for
 explosives)
 IT 7727-43-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (barium sulfate-silicon-red lead-based
delay detonator compos. for explosives)
 RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)

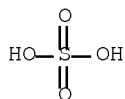


● Ba

L123 ANSWER 2 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2006:131653 HCAPLUS Full-text
 DOCUMENT NUMBER: 144:264897
 TITLE: Method for manufacturing compound conductive powders
 containing Sb and rare earth doped tin oxide
 INVENTOR(S): Liu, Xiaozhen
 PATENT ASSIGNEE(S): Shanghai Institute of Technology, Peop. Rep. China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

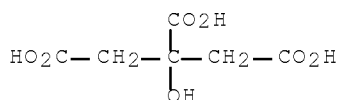
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
CN 1588568	A	20050302	CN 2004-10053277	20040729 <--

PRIORITY APPLN. INFO.:
 ED Entered STN: 13 Feb 2006
 AB The title method comprises: (1) mixing one or more oxides of La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y and Sc with tin powder, Sb₂O₃, citric acid and/or tartaric acid complexing agent and HNO₃ to obtain a mixed solution with tin concentration of 0.05-2.5 M and HNO₃ concentration of 0.5-12 M, (2) dispersing conductive core material in water, (3) dropping the mixed solution and 0.5-12 M ammonia under stirring to obtain precipitate at 1-80°C and pH 3-11, (4) washing, drying at 100-105°C for 1-2 h, and sieving, and (5) sintering at 400-1,100°C for 0.5-5 h to obtain the conductive powders. The molar ratio of rare earth oxide, Sb₂O₃ and tin is (100/106 : 0.1 : 40)-(30 : 30 : 95). The obtained conductive powders have the specific resistance lower than 7.2 Ω•cm.
 IPCI H01B0013-00 [ICM,7]; H01B0001-00 [ICS,7]
 IPCR H01B0001-00 [I,C*]; H01B0001-00 [I,A]; H01B0013-00 [I,C*]; H01B0013-00 [I,A]
 CC 76-2 (Electric Phenomena)
 IT 1302-54-1, Anorthite 1302-88-1, Dichroite 1304-28-5, Barium oxide, processes 1305-78-8, Calcium oxide, processes 1308-87-8, Dysprosium oxide 1309-48-4, Magnesium oxide, processes 1309-64-4, Antimony trioxide, processes 1312-81-8, Lanthanum trioxide 1313-97-9, Neodymium trioxide 1313-99-1, Nickel oxide, processes 1314-11-0, Strontium oxide, processes 1314-36-9, Yttrium oxide, processes 1314-37-0, Ytterbium oxide 1332-37-2, Iron oxide, processes 1345-13-7, Cerium trioxide 7440-31-5, Tin, processes 7727-43-7, Barium sulfate 7759-02-6, Strontium sulfate 7778-18-9, Calcium sulfate 12032-20-1, Lutetium oxide 12036-32-7, Praseodymium oxide (Pr₂O₃) 12036-41-8, Terbium oxide 12036-44-1, Thulium oxide 12055-62-8, Holmium oxide 12060-08-1, Scandium oxide 12060-58-1, Samarium oxide 12061-16-4, Erbium oxide 12064-62-9, Gadolinium oxide (Gd₂O₃) 12269-78-2, Pyrophyllite 12770-85-3, Europium oxide 13463-67-7, Titanium oxide, processes 14808-60-7, Quartz, processes
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
 (method for manufacturing compound conductive powders containing Sb and rare earth doped tin oxide)
 IT 64-17-5, Ethanol, uses 77-92-9, Citric acid, uses 87-69-4, Tartaric acid, uses 7664-41-7, Ammonia, uses 7697-37-2, Nitric acid, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (method for manufacturing compound conductive powders containing Sb and rare earth doped tin oxide)
 IT 7727-43-7, Barium sulfate
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
 (method for manufacturing compound conductive powders containing Sb and rare earth doped tin oxide)
 RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

IT 77-92-9, Citric acid, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (method for manufacturing compound conductive powders containing Sb and rare earth doped tin oxide)
 RN 77-92-9 HCAPLUS
 CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



L123 ANSWER 3 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2004:3637 HCAPLUS Full-text

DOCUMENT NUMBER: 140:62060

TITLE: Compositions of oil-based biodegradable
 drilling fluids and process for drilling oil and gas
 wells

INVENTOR(S): Goncalves, Jose Thomaz; De Oliveira, Marcelo Fontes;
 Aragao, Atila Fernando Lima

PATENT ASSIGNEE(S): Petroleo Brasileiro S.A. - Petrobras, Brazil

SOURCE: U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20040002427	A1	20040101	US 2003-341253	20030114 <--
US 7285515	B2	20071023		
BR 2002002361	A	20040504	BR 2002-2361	20020621 <--
PRIORITY APPLN. INFO.:			BR 2002-2361	A 20020621 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

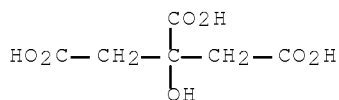
ED Entered STN: 04 Jan 2004

AB The oil-based biodegradable drilling fluids comprise an oil phase composed of Me esters of soybean oil fatty acids, an aqueous phase finely dispersed in the oil phase by specific emulsifiers and several other additives having specific functions for providing suitable performance to the finished drilling fluid composition. The process to manufacture the inverted emulsion and the drilling process that employs the comons of the invention are described.

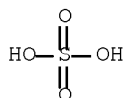
INCL 507100000

10/596,007

IPCI C09K0008-36 [I,A]; C09K0008-02 [I,C*]
IPCR C09K0008-02 [I,C*]; C09K0008-34 [I,A]; C09K0008-36 [I,A]
NCL 507/100.000; 507/103.000; 507/119.000; 507/137.000; 507/138.000;
507/140.000
CC 51-2 (Fossil Fuels, Derivatives, and Related Products)
IT 77-92-9, Citric acid, uses 123-56-8D,
2,5-Pyrrolidinedione, compds. with polyacrylates 1309-48-4, Magnesium
oxide, uses 7647-14-5, Sodium chloride, uses 9003-04-7, Sodium
polyacrylate
RL: MOA (Modifier or additive use); USES (Uses)
(oil-based biodegradable drilling fluids and process for drilling oil
and gas wells)
IT 7727-43-7, Barium sulfate
RL: MOA (Modifier or additive use); USES (Uses)
(weighting agent; oil-based biodegradable drilling fluids and process
for drilling oil and gas wells)
IT 77-92-9, Citric acid, uses
RL: MOA (Modifier or additive use); USES (Uses)
(oil-based biodegradable drilling fluids and process for drilling oil
and gas wells)
RN 77-92-9 HCAPLUS
CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



IT 7727-43-7, Barium sulfate
RL: MOA (Modifier or additive use); USES (Uses)
(weighting agent; oil-based biodegradable drilling fluids and process
for drilling oil and gas wells)
RN 7727-43-7 HCAPLUS
CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 4 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER: 2004:587944 HCAPLUS Full-text
DOCUMENT NUMBER: 141:128370
TITLE: Particulate disinfectant for aqueous liquids, based on
a micromilled metallic Ag and/or ZrSiO₄ component and
substrate

10/596,007

INVENTOR(S): Cichos, Christoph; Cichos, Irmgard; Guggenbichler, Josef-Peter
 PATENT ASSIGNEE(S): UVR-FIA GmbH Verfahrensentwicklung Umweltschutztechnik Recycling, Germany
 SOURCE: Ger. Offen., 8 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10323448	A1	20040722	DE 2003-10323448	20030523 <--
WO 2004063099	A1	20040729	WO 2004-EP105	20040109 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ

PRIORITY APPLN. INFO.: DE 2003-10300553 IA 20030109 <--
 DE 2003-10323448 A 20030523 <--

ED Entered STN: 23 Jul 2004

AB The present invention refers to a particulate disinfection material for aqueous liqs. based on a micromilled metallic silver and/or zirconium silicate component and substrate. The disinfectant material consists of: (A) a water-insol. inorg. and/or organic substrate with a particle size of 0.1 to 100 µm, coated with micromilled metallic silver and/or zirconium silicate; (B) a particulate water-insol. inorg. and/or organic extender material with a particle size of 0.01 to 1 mm, not coated with micromilled metallic silver and/or zirconium silicate; and (C) a bonding agent, which binds the mixture from (A) and (B) into molded shapes, whose silver and/or zirconium silicate content is 0.1 to 5 weight%. In preparing this particulate material, silver ions provided as a silver salt are converted to colloidal silver by slow dosing of a reducing agent.

IPCI C02F0001-50 [ICM,7]

IPCR A01N0059-16 [I,C*]; A01N0059-16 [I,A]; A61L0002-00 [I,C*]; A61L0002-00 [I,A]; C02F0001-50 [I,C*]; C02F0001-50 [I,A]

CC 61-5 (Water)

IT Carbohydrates

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (aldoses, as reducing agent; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO4 component and substrate)

IT Aldehydes

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (as reducing agent; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO4 component and substrate)

IT Acids

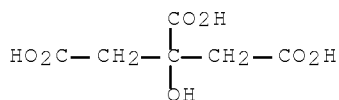
Group IIIA element compounds

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (boronic acids, as reducing agent; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO4 component and substrate)

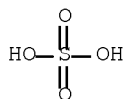
IT Polymers

RL: NUU (Other use, unclassified); USES (Uses) (dispersions, organic bonding agent; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO4 component and substrate)

- IT Group VIA element compounds
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (dithionites, as reducing agent; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO₄ component and substrate)
- IT Hydrides
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (inorg., complexed, as reducing agent; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO₄ component and substrate)
- IT Acids
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (organic, as reducing agent; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO₄ component and substrate)
- IT 50-81-7, Ascorbic acid, reactions 77-92-9, Citric acid, reactions 87-69-4, Tartaric acid, reactions 123-31-9, Hydroquinone, reactions 302-01-2D, Hydrazine, compds. 9002-98-6, Polyethylenimine 70992-21-1, Alanate 77938-63-7, Glucose monohydrate
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (as reducing agent; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO₄ component and substrate)
- IT 7664-38-2, Phosphoric acid, reactions
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (reducing agent; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO₄ component and substrate)
- IT 7727-43-7, Barium sulfate
 RL: NUU (Other use, unclassified); USES (Uses) (substrate material component; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO₄ component and substrate)
- IT 77-92-9, Citric acid, reactions
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent) (as reducing agent; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO₄ component and substrate)
- RN 77-92-9 HCAPLUS
- CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



- IT 7727-43-7, Barium sulfate
 RL: NUU (Other use, unclassified); USES (Uses) (substrate material component; particulate disinfectant for aqueous liqs., based on micromilled metallic Ag and/or ZrSiO₄ component and substrate)
- RN 7727-43-7 HCAPLUS
- CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)

L123 ANSWER 5 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2003:417811 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:8214
 TITLE: Compositions containing nanoparticles for
 production of scratch and abrasion-resistant coatings
 INVENTOR(S): Moebus, Helmut; Ptatschek, Volker; Bister, Erhard;
 Glaesel, Hans-Juergen; Hartmann, Eberhard
 PATENT ASSIGNEE(S): Deutsche Amphibolin-Werke Von Robert Murjahn G.m.b.H.
 & Co. K.-G., Germany
 SOURCE: PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003044099	A1	20030530	WO 2002-EP13156	20021122 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002358027	A1	20030610	AU 2002-358027	20021122 <--
EP 1448724	A1	20040825	EP 2002-791698	20021122 <--
EP 1448724	B1	20070131		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
AT 353094	T	20070215	AT 2002-791698	20021122 <--
PRIORITY APPLN. INFO.:				
			DE 2001-10157468	A 20011123 <--
			WO 2002-EP13156	W 20021122 <--

ED Entered STN: 01 Jun 2003

AB A coating composition comprises nanoparticles and an organic binding agent, and, optionally, additives and other substances, 10-80% of the composition being nanoparticles and/or agglomerates of the nanoparticles with the average particle size from 1 to 200 nm, the nanoparticles being oxides and/or mixed oxides of elements from the second to fourth main group and/or elements of the first to eighth subgroup of the periodic system including lanthanides, and 20-90% of the composition being the organic binding agent with mol. weight from 250 to 10,000 g/mol. The compos. can be cured by irradiating with IR, UV, α -, β - or γ -radiation,

and are used to form scratch-resistant and abrasion-resistant coatings for chemical and mech. demanding applications. Thus, a composition comprising Craynor CN 925 polyurethane acrylate (20), Craynor CN 981 polyurethane acrylate (10), hexanediol diacrylate (25), octamethyltrisiloxane (0.8), MEHQ (0.04), Aerosil 200 nanoparticles (15), and alumina nanoparticles (Martoxid DN 430) (30 parts) was produced. IPCI C09D0007-12 [ICM,7]

IPCR C09D0007-12 [I,C*]; C09D0007-12 [I,A]

CC 42-7 (Coatings, Inks, and Related Products)

ST scratch abrasion resistant coating compr oxide nanoparticle acrylate binder

IT Coating materials

(abrasion- and scratch-resistant; compos. containing nanoparticles for production of)

IT Polyesters, uses

Polyurethanes, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(acrylate-terminated; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)

IT Epoxy resins, uses

Polyethers, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(acrylates; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)

IT Polysiloxanes, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(acrylic, ethoxylated propoxylated, graft, Byk Silclean 3700; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)

IT Binders

Nanoparticles

(compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)

IT Polysiloxanes, uses

Polyvinyl butyrals

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)

IT Silica gel, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)

IT Polyesters, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(hydroxy-terminated; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)

IT Oxides (inorganic), uses

Rare earth oxides

RL: TEM (Technical or engineered material use); USES (Uses)

(nanoparticles; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)

IT Polyethers, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(polyester-, dendrimers, acrylates; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)

- IT Dendritic polymers
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (polyester-polyethers, acrylates; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)
- IT Polyesters, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (polyether-, dendrimers, acrylates; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)
- IT Polysiloxanes, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (polyoxyalkylene-; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)
- IT Polyoxyalkylenes, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (polysiloxane-; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)
- IT 13463-67-7, Titania, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Hombitec RM 300 and P 25; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)
- IT 1344-28-1, Alumina, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Martoxid DN 430; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)
- IT 31900-57-9D, Dimethylsilanediol homopolymer, hydroxy-terminated or vinyl-terminated or trimethylsilyl-terminated or hydrogen-terminated 156048-34-9D, Dimethylsilanediol-diphenylsilanediol copolymer, hydroxy-terminated
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (assumed monomers; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)
- IT 7631-86-9, Silica, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (colloidal, Aerosil OX 50, Aerosil 200, Aerosil TT 600, IPA-ST; compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)
- IT 75-56-9D, Methyloxirane, polymers with oxirane and polysiloxanes, esters with acrylic acid copolymers and/or maleic acid copolymers 9003-20-7, Poly(vinyl acetate) 9011-14-7, Poly(methyl methacrylate) 31692-79-2 33135-58-9D, Maleic anhydride-trimethylolpropane copolymer, acrylates 42557-10-8, Dimethyl siloxane, trimethylsilyl-terminated 59942-04-0, Dimethyl siloxane, vinyl-terminated 81584-55-6, Desmophen 670 138636-06-3, Ebecryl 1290 155808-64-3, Laromer LR 8800 178153-95-2, Craynor CN 981 291765-05-4, Craynor CN 292 535960-63-5, Craynor CN 925
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (compos. containing nanoparticles for production of scratch and abrasion-resistant coatings)
- IT 75-21-8D, Oxirane, polymers with methyloxirane and polysiloxanes, esters with acrylic acid copolymers and/or maleic acid copolymers 107-51-7, Octamethyltrisiloxane 141-32-2, Butyl acrylate 556-67-2, Octamethylcyclotetrasiloxane 1070-70-8 7727-43-7, Sachtoperse HU-N Spezial 13048-33-4 14464-46-1, Sibelite M 3000

15625-89-5, Trimethylolpropane triacrylate 24623-77-6, Disperal
 28961-43-5 42978-66-5, Tripropyleneglycol diacrylate 51728-26-8
 57472-68-1, Dipropyleneglycol diacrylate 133751-08-3 198497-12-0,
 Sillitin Z 89 355119-04-9, Highlink OG 103-53 502618-64-6, Nanofil 15
 535961-23-0, Laromer 8987 540473-91-4, Acematt OK 412

RL: TEM (Technical or engineered material use); USES (Uses)

(compos. containing nanoparticles for production of scratch and
 abrasion-resistant coatings)

IT 1318-93-0, Montmorillonite, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(dimethyldioctadecylammonium cation-modified; compos. containing
 nanoparticles for production of scratch and abrasion-resistant coatings)

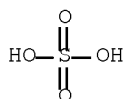
IT ~~7727-43-7~~, Sachtoperse HU-N Spezial

RL: TEM (Technical or engineered material use); USES (Uses)

(compos. containing nanoparticles for production of scratch and
 abrasion-resistant coatings)

RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD
 (7 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 6 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2002:716216 HCAPLUS Full-text

DOCUMENT NUMBER: 137:249889

TITLE: Barium sulfate-silicon-red
lead-based delay detonator
compositions for explosives

INVENTOR(S): Aube, Rejean

PATENT ASSIGNEE(S): Orica Explosives Technology Pty. Ltd., Australia

SOURCE: PCT Int. Appl., 43 pp., Chemical Indexing Equivalent
 to 151:36629 (CA)
 CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002072504	A1	20020919	WO 2002-CA308	20020307 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,				

10/596,007

UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2340523	C	20090602	CA 2001-2340523	20010309
CA 2340523	A1	20020909		<--
AU 2002240749	A1	20020924	AU 2002-240749	20020307 <--
AU 2002240749	B2	20050224		
SE 2003002370	A	20031110	SE 2003-2370	20030904 <--
SE 524533	C2	20040824		

PRIORITY APPLN. INFO.: CA 2001-2340523 A 20010309 <--
WO 2002-CA308 W 20020307 <--

ED Entered STN: 20 Sep 2002

AB Detonator delay comps. are composed of silicon 25-50, barium sulfate 40-60, and red lead (Pb304) 3-15 weight%, in addition to 0.2-0.6 weight% binder, selected from solvent-soluble polymers, silica, and swelling clays, preferably Na CM-cellulose. The BaSO4 and silicon particles have sp. surface areas of 0.8 and 6-8 m2/g, resp.; Pb304 is present in particle sizes of 1-3 μ . The binder is selected to be able to form the delay composition particles into agglomerations of granules. The composition is incorporated into a detonator or delay device comprising a hollow metal tube, composed of zinc, aluminum, steel, and brass, with a burning delay of 2-9 s. IPCI C06C0005-06 [ICM,7]; C06C0005-00 [ICM,7,C*]; C06B0033-12 [ICS,7];

C06B0033-00 [ICS,7,C*]; C06C0007-00 [ICS,7]

IPCR C06B0033-00 [I,C*]; C06B0033-12 [I,A]; C06C0005-00 [I,C*]; C06C0005-06 [I,A]

CC 50-4 (Propellants and Explosives)

ST pyrotechnic delay detonator red lead silicon; barium sulfate silicon pyrotechnic delay detonator

IT Detonators

(barium sulfate-silicon-red lead-based
delay detonator comps. for explosives)

IT Pyrotechnic compositions

(delay; barium sulfate-silicon-red
lead-based delay detonator comps. for explosives)

IT 1314-41-6, Lead oxide (Pb304) 7440-21-3, Silicon, uses

7727-43-7, Barium sulfate

RL: TEM (Technical or engineered material use); USES (Uses)

(barium sulfate-silicon-red lead-based
delay detonator comps. for explosives)

IT 7440-66-6, Zinc, uses

RL: NUU (Other use, unclassified); USES (Uses)

(detonator casing; barium sulfate-silicon-red
lead-based delay detonator comps. for explosives)

IT 9004-32-4, Tylose C600

RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

(tylose C600, binder; barium sulfate
-silicon-red lead-based delay detonator comps. for
explosives)

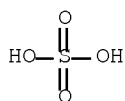
IT 7727-43-7, Barium sulfate

RL: TEM (Technical or engineered material use); USES (Uses)

(barium sulfate-silicon-red lead-based
delay detonator comps. for explosives)

RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 7 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER: 2002:315045 HCAPLUS Full-text
DOCUMENT NUMBER: 136:344497
TITLE: Method of making agglomerate particles for
composite polymer-abrasive articles
INVENTOR(S): Culler, Scott R.; McArdle, James L.; Nelson, Jeffrey
W.; Wallace, John T.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002033020	A1	20020425	WO 2001-US31395	20011005 <--
W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW	
RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
CA 2425190	A1	20020425	CA 2001-2425190	20011005 <--
CA 2425190	C	20100302		
AU 2002011508	A	20020429	AU 2002-11508	20011005 <--
EP 1326941	A1	20030716	EP 2001-979561	20011005 <--
EP 1326941	B1	20080102		
R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR	
JP 2004511646	T	20040415	JP 2002-536392	20011005 <--
CN 1315972	C	20070516	CN 2001-817349	20011005 <--
AT 382671	T	20080115	AT 2001-979561	20011005 <--
MX 2003003290	A	20040504	MX 2003-3290	20030414 <--
US 20040026833	A1	20040212	US 2003-612999	20030702 <--
US 6913824	B2	20050705		
PRIORITY APPLN. INFO.:			US 2000-688486	A 20001016 <--
			WO 2001-US31395	W 20011005 <--

ED Entered STN: 26 Apr 2002

AB A method for making agglomerate particles from a comprn . comprising at least

a radiation curable binder and solid particulates. The method comprises the steps of forcing the composition through a perforated substrate to form agglomerate precursor particles which then sep. from the perforated substrate. Then, the particles are irradiated to form solidified, handleable agglomerate particles before being collected. Examples of materials of such abrasive grains include fused alumina, ceramic alumina, white fused alumina, heat-treated alumina, silica, SiC, aluminum zirconium oxide, diamond, ceria, cubic boron nitride, garnet, tripoli, and combinations thereof. The ceramic abrasive grit comprises α -alumina and, optionally, a metal oxide modifier, such as MgO, ZrO₂, ZnO, NiO, hafnia, yttria, silica, iron oxide, titania, lanthanum oxide, ceria, neodymium oxide, and combinations thereof. The binder precursor comprises epoxy resins, acrylated urethane resins, acrylated epoxy resins, ethylenically unsatd. resins, aminoplast resins having pendant unsatd. carbonyl groups, isocyanurate derivs. having at least one pendant acrylate group, isocyanate derivs. having at least one pendant acrylate group or combinations thereof. Examples of fillers suitable for this invention include wood pulp, vermiculite, and combinations thereof, metal carbonates, such as calcium carbonate, e.g., chalk, calcite, marl, travertine, marble, and limestone, calcium magnesium carbonate, sodium carbonate, magnesium carbonate; silica, such as amorphous silica, quartz, glass beads, glass powder, glass bubbles, and glass fibers; silicates, such as talc, clays (montmorillonite), feldspar, mica, calcium silicate, calcium metasilicate, sodium aluminosilicate, sodium silicate; metal sulfates, such as calcium sulfate, barium sulfate, sodium sulfate, aluminum sodium sulfate, aluminum sulfate; gypsum; vermiculite; wood flour; aluminum trihydrate; metal oxides, such as calcium oxide (lime), aluminum oxide, titanium dioxide, and metal sulfites, such as calcium sulfite. The radiation source comprises electron beam, UV light, visible light, laser light or combinations thereof. IPCI C09K0003-14 [ICM,7]; B24D0003-00 [ICS,7]; C04B0035-111 [ICS,7];

B24D0003-28 [ICS,7]; B24D0003-20 [ICS,7,C*]; B24D0011-00 [ICS,7]

IPCR C08J0003-12 [I,C*]; C08J0003-12 [I,A]; B01J0019-12 [I,C*]; B01J0019-12 [I,A]; B24D0003-04 [I,C*]; B24D0003-14 [I,A]; B24D0003-20 [I,C*]; B24D0003-28 [I,A]; B24D0011-00 [I,C*]; B24D0011-00 [I,A]; C08J0003-28 [I,C*]; C08J0003-28 [I,A]; C08J0005-14 [I,C*]; C08J0005-14 [I,A]; C09K0003-14 [I,C*]; C09K0003-14 [I,A]

CC 57-7 (Ceramics)

ST abrasive composite polymer alumina silica silicon carbide; diamond ceria boron nitride garnet zirconia abrasive composite

IT Acrylic rubber

RL: MOA (Modifier or additive use); USES (Uses)
(Hycar 2679; method of making agglomerate particles for composite polymer-abrasive articles)

IT Phenolic resins, uses

RL: MOA (Modifier or additive use); USES (Uses)
(abrasive backing coated with; method of making agglomerate particles for composite polymer-abrasive articles)

IT Tripoli

(abrasive grains; method of making agglomerate particles for composite polymer-abrasive articles)

IT Garnet-group minerals

RL: TEM (Technical or engineered material use); USES (Uses)
(abrasive grains; method of making agglomerate particles for composite polymer-abrasive articles)

IT Epoxy resins, uses

Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(acrylated, thermosetting binder precursor; method of making agglomerate particles for composite polymer-abrasive articles)

IT Conducting polymers

Humectants
(antistatic agent; method of making agglomerate particles for

- composite polymer-abrasive articles)
- IT Carbon black, uses
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (antistatic agent; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Nitrile rubber, uses
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (carboxy-containing, Hycar 1581; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Waxes
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (chlorinated, grinding aids; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Dispersing agents
 - Lubricants
 - Pigments, nonbiological
 - Surfactants
 - (composite additives; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Titanates
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (coupling agents; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Cellulose pulp
 - (filler; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Chalk
 - Clays, uses
 - Feldspar-group minerals
 - Glass beads
 - Glass fibers, uses
 - Kaolin, uses
 - Limestone, uses
 - Marble
 - Marl
 - Mica-group minerals, uses
 - Travertine
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (filler; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Sulfides, uses
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (grinding aids; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Silanes
 - RL: MOA (Modifier or additive use); USES (Uses)
 - (organosilanes, Organo-silanes, coupling agent; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Electron beams
 - Laser radiation
 - Light
 - Microwave
 - UV radiation
 - (polymer-abrasive composite curing by radiation of; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Composites
 - (polymer-abrasive; method of making agglomerate particles for composite polymer-abrasive articles)

- IT Aluminoborosilicate glasses
RL: MOA (Modifier or additive use); USES (Uses)
(powder SP1086; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Aminoplasts
RL: TEM (Technical or engineered material use); USES (Uses)
(thermosetting binder precursor; method of making agglomerate particles for composite polymer-abrasive articles)
- IT Polyesters, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(thick polyester film backing; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 24650-42-8, ESACURE KB1
RL: MOA (Modifier or additive use); USES (Uses)
(IRGACURE 651; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 9003-35-4, Arofene 72155
RL: MOA (Modifier or additive use); USES (Uses)
(abrasive backing coated with; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 415950-38-8, GP 387D51
RL: MOA (Modifier or additive use); USES (Uses)
(abrasive backing impregnated with; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 409-21-2, Silicon carbide (SiC), uses 7782-40-3, Diamond, uses 10043-11-5, Boron nitride, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(abrasive grains; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 1306-38-3, Ceria, uses 416845-89-1, CCPL
RL: TEM (Technical or engineered material use); USES (Uses)
(abrasive particles; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 1314-62-1, Vanadium oxide, uses 7782-42-5, Graphite, uses
RL: MOA (Modifier or additive use); USES (Uses)
(antistatic agent; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 80-15-9, Cumene Hydroperoxide
RL: MOA (Modifier or additive use); USES (Uses)
(binder component; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 7631-86-9, OX-50, uses
RL: MOA (Modifier or additive use); USES (Uses)
(colloidal, amorphous silica filler; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 60800-19-3, Aluminum zirconium oxide
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(coupling agent, abrasive grains; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 7803-62-5, Silane, uses
RL: MOA (Modifier or additive use); USES (Uses)
(coupling agent; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 471-34-1, Calcium carbonate, uses 497-19-8, Sodium carbonate, uses 546-93-0, Magnesium carbonate 1305-78-8, Calcium oxide, uses 1318-00-9, Vermiculite 1318-93-0, Montmorillonite, uses 1344-00-9,

- Sodium aluminosilicate 1344-09-8, Sodium silicate 1344-95-2, Calcium silicate 7000-29-5, Calcium magnesium carbonate 7727-43-7, Barium sulfate 7757-82-6, Sodium sulfate, uses 7778-18-9, Calcium sulfate 10024-42-7, Aluminum sodium sulfate 10101-39-0, Calcium metasilicate 10257-55-3, Calcium sulfite 13397-24-5, Gypsum, uses 13397-26-7, Calcite, uses 14807-96-6, Talc, uses 14808-60-7, Quartz, uses 15096-52-3, Cryolite 16893-85-9 127496-31-5, Wollastokup 409307-11-5, RTN
- RL: MOA (Modifier or additive use); USES (Uses)
(filler; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 1344-28-1, Alumina, uses
- RL: TEM (Technical or engineered material use); USES (Uses)
(fused, heat treated, abrasive grains; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 1321-64-8, Pentachloronaphthalene 1335-88-2, Tetrachloronaphthalene 7439-89-6, Iron, uses 7439-92-1, Lead, uses 7440-31-5, Tin, uses 7440-32-6, Titanium, uses 7440-36-0, Antimony, uses 7440-43-9, Cadmium, uses 7440-48-4, Cobalt, uses 7440-69-9, Bismuth, uses 7447-40-7, Potassium chloride, uses 7647-14-5, Sodium chloride, uses 7704-34-9, Sulfur, uses 7786-30-3, Magnesium chloride, uses 9002-86-2, Polyvinyl chloride 13755-29-8, Sodium tetrafluoroborate 14075-53-7, Potassium tetrafluoroborate 39384-00-4, Silicon fluoride 60996-20-5, Potassium cryolite 63692-16-0, Ammonium cryolite
- RL: MOA (Modifier or additive use); USES (Uses)
(grinding aid; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 15520-11-3, Perkadox 16S
- RL: MOA (Modifier or additive use); USES (Uses)
(method of making agglomerate particles for composite polymer-abrasive articles)
- IT 4419-11-8, VAZO 52 15625-89-5, SR351 40220-08-4, SR368 119313-12-1, IRGACURE 369
- RL: TEM (Technical or engineered material use); USES (Uses)
(method of making agglomerate particles for composite polymer-abrasive articles)
- IT 9003-18-3
- RL: MOA (Modifier or additive use); USES (Uses)
(nitrile rubber, carboxy-containing, Hycar 1581; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 1309-37-1, Iron oxide, uses 1309-48-4, Magnesia, uses 1312-81-8, Lanthanum oxide 1313-97-9, Neodymium oxide 1313-99-1, Nickel oxide, uses 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconia, uses 1314-36-9, Yttria, uses 12055-23-1, Hafnium oxide 13463-67-7, Titania, uses
- RL: MOA (Modifier or additive use); USES (Uses)
(oxide modifier of ceramic abrasive grit; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 9010-77-9, Ethyleneacrylic acid copolymer
- RL: MOA (Modifier or additive use); USES (Uses)
(primer for the PET film backing; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 2530-85-0, A-174
- RL: TEM (Technical or engineered material use); USES (Uses)
(silane coupling agent; method of making agglomerate particles for composite polymer-abrasive articles)
- IT 289482-25-3, CUBITRON 321

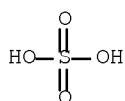
RL: TEM (Technical or engineered material use); USES (Uses)
(sol gel-derived alumina-based abrasive grains; method of making
agglomerate particles for composite polymer-abrasive
articles)

IT 108-80-5D, Isocyanuric acid, derivs. 661-20-1D, Isocyanate, derivs.
RL: TEM (Technical or engineered material use); USES (Uses)
(thermosetting binder precursor; method of making
agglomerate particles for composite polymer-abrasive
articles)

IT 7727-43-7, Barium sulfate
RL: MOA (Modifier or additive use); USES (Uses)
(filler; method of making agglomerate particles for
composite polymer-abrasive articles)

RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 8 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2002:314879 HCAPLUS Full-text

DOCUMENT NUMBER: 136:344495

TITLE: Manufacture of abrasive agglomerate
particles and radiation curable
polymer-abrasive composite articles

INVENTOR(S): Culler, Scott R.; McArdle, James L.; Nelson, Jeffrey
W.; Wallace, John T.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002032832	A1	20020425	WO 2001-US31396	20011005 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 US 6521004 B1 20030218 US 2000-688444 20001016 <--
 AU 2002011509 A 20020429 AU 2002-11509 20011005 <--
 PRIORITY APPLN. INFO.: US 2000-688444 A 20001016 <--
 US 2000-688484 A 20001016 <--
 WO 2001-US31396 W 20011005 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 26 Apr 2002

AB The abrasive agglomerate particles are manufactured from a composition comprising at least a radiation curable binder and solid particulates. The method comprises forcing the composition through a perforated substrate to form agglomerate precursor particles which then sep. from the perforated substrate. Then, the particles are irradiated to form solidified, handleable agglomerate particles before being collected. The particles may be used to make abrasive articles that include a backing, abrasive agglomerate particles and a bonding medium to adhere the abrasive agglomerate particles to the backing. A coated abrasive article such as the backing comprises paper, nonwoven substrates, woven substrates, polymer film, primed polymeric film, vulcanized fibers, or combinations thereof. The binder comprises a resinous adhesive. The irradiation step comprises a step of passing the abrasive agglomerate precursor particles into a first and second curing zones that contains the radiation source such as electron beam, UV light, visible light, microwave, laser light, thermal or combinations thereof. The binder precursor comprises epoxy resins, acrylated urethane resins, acrylated epoxy resins, ethylenically unsatd. resins, aminoplast resins having pendant unsatd. carbonyl groups, isocyanurate derivs. having at least one pendant acrylate group, isocyanate derivs. having at least one pendant acrylate group or combinations thereof. The abrasive agglomerate particles are filamentary shaped and have a length ranging from .apprx.10 to .apprx.1500 μ m. The abrasive agglomerate precursor particles further comprise modifying additives such as diluents, antistatic agents, lubricants, pigments, suspending agents, coupling agents, grinding aids, fillers, inorg. binder precursors, surfactants or combinations thereof. A size reduction step is performed on the abrasive agglomerate particles after the irradiation step. Said abrasive grains comprise fused alumina, white fused alumina, heat-treated alumina, silica, SiC, green SiC, alumina zirconia, diamond, ceria, cubic BN, garnet, tripoli, or combinations thereof.

IPCI C04B0035-111 [ICM,7]; C09K0003-14 [ICS,7]; B24D0003-28 [ICS,7];

B24D0003-20 [ICS,7,C*]; B24D0011-00 [ICS,7]

IPCR B24D0003-04 [I,C*]; B24D0003-14 [I,A]; B24D0003-20 [I,C*]; B24D0003-28

[I,A]; B24D0011-00 [I,C*]; B24D0011-00 [I,A]; C04B0035-111 [I,C*];

C04B0035-111 [I,A]; C09K0003-14 [I,C*]; C09K0003-14 [I,A]

CC 57-7 (Ceramics)

ST abrasive agglomerate alumina silica silicon carbide zirconia
 diamond; ceria boron nitride garnet agglomerated abrasive
 particle

IT Gossypium hirsutum

(65/35 polyester/cotton open end twill fabric, abrasive backing;
 manufacture

of abrasive agglomerate particles and radiation
curable polymer-abrasive composite articles)

IT Polyesters, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(65/35 polyester/cotton open end twill fabric, abrasive backing;
 manufacture

of abrasive agglomerate particles and radiation
curable polymer-abrasive composite articles)

IT Limestone, uses

RL: MOA (Modifier or additive use); USES (Uses)

(Hubercarb Q 325; manufacture of abrasive agglomerate particles
 and radiation curable polymer-abrasive
composite articles)

- IT Acrylic rubber
RL: TEM (Technical or engineered material use); USES (Uses)
(Hycar 2679, abrasive backing impregnated with; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Glass powders
RL: MOA (Modifier or additive use); USES (Uses)
(SP 1086, filler; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Agglomerates (clustered mass)
(abrasive agglomerate particles; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(abrasive backing coated with; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Nonwoven fabrics
Paper
(abrasive backing substrates; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Tripoli
(abrasive particles; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Garnet-group minerals
RL: TEM (Technical or engineered material use); USES (Uses)
(abrasive particles; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(acrylated, binder precursor; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Humectants
(antistatic agent; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Carbon black, uses
RL: MOA (Modifier or additive use); USES (Uses)
(antistatic agent; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Aminoplasts
Epoxy resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(binder precursor; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Glass, uses
RL: MOA (Modifier or additive use); USES (Uses)
(bubbles, filler; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Titanates
RL: MOA (Modifier or additive use); USES (Uses)

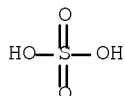
- (coupling agent; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Electron beams
Laser radiation
Light
Microwave
UV radiation
(curing radiation source; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Resins
RL: TEM (Technical or engineered material use); USES (Uses)
(ethylenically unsatd., binder precursor; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Cellulose pulp
(filler; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Chalk
Clays, uses
Feldspar-group minerals
Glass beads
Glass fibers, uses
Marble
Marl
Mica-group minerals, uses
Travertine
RL: MOA (Modifier or additive use); USES (Uses)
(filler; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Hafnia
(metal oxide modifier; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Antistatic agents
Coupling agents
Dispersing agents
Fillers
Lubricants
Pigments, nonbiological
Surfactants
(modifying additives; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Abrasives
(particles; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Polymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polymeric film, abrasive backing substrates; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Urethane rubber, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polytetramethylene glycol-TDI, Adiprene BL 16, polymer coating component; manufacture of abrasive agglomerate particles and

- radiation curable polymer-abrasive composite articles)
- IT Crosslinking
(radiation curing; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Adhesives
(resinous, binder component; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Phenolic resins, uses
RL: MOA (Modifier or additive use); USES (Uses)
(resol, binder component; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Polyamides, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(staple fiber, abrasive backing; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT Fibers
RL: TEM (Technical or engineered material use); USES (Uses)
(vulcanized fibers, abrasive backing substrates; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 24650-42-8
RL: MOA (Modifier or additive use); USES (Uses)
(Esacure KB 1, Irgacure 651, binder component; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 9003-35-4, Aroclene 72155
RL: TEM (Technical or engineered material use); USES (Uses)
(abrasive backing coated with; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 415950-38-8, GP 387D51
RL: TEM (Technical or engineered material use); USES (Uses)
(abrasive backing impregnated with; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 409-21-2, Silicon carbide (SiC), uses 1306-38-3, Ceria, uses 7631-86-9, Silica, uses 7782-40-3, Diamond, uses 10043-11-5D, Boron nitride, cubic 60800-19-3, Aluminum zirconium oxide 289482-25-3, CUBITRON 321
RL: TEM (Technical or engineered material use); USES (Uses)
(abrasive particles; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 1314-62-1, Vanadium oxide, uses 7782-42-5, Graphite, uses
RL: MOA (Modifier or additive use); USES (Uses)
(antistatic agent; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 3699-54-5, SR 511A 4419-11-8, VAZO 52 15520-11-3, Perkadox 16S 15625-89-5, SR 351 40220-08-4, SR 368
RL: MOA (Modifier or additive use); USES (Uses)
(binder component; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 108-80-5D, Isocyanuric acid, derivs. 661-20-1D, Isocyanate, derivs.

- RL: TEM (Technical or engineered material use); USES (Uses)
 (binder precursor; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 7803-62-5, Silane, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (coupling agent; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 471-34-1, Calcium carbonate, uses 497-19-8, Sodium carbonate, uses 546-93-0, Magnesium carbonate 1305-78-8, Calcium oxide, uses 1318-00-9, Vermiculite 1318-93-0, Montmorillonite, uses 1344-00-9, Sodium aluminosilicate 1344-09-8, Sodium silicate 1344-95-2, Calcium silicate 7000-29-5, Calcium magnesium carbonate 7727-43-7, Barium sulfate 7757-82-6, Sodium sulfate, uses 7778-18-9, Calcium sulfate 10024-42-7, Aluminum sodium sulfate 10043-01-3, Aluminum sulfate 10101-39-0, Calcium metasilicate 10257-55-3, Calcium sulfite 13397-24-5, Gypsum, uses 13397-26-7, Calcite, uses 14807-96-6, Talc, uses 14808-60-7, Quartz, uses 15096-52-3, Cryolite 16893-85-9, Sodium silicon fluoride (Na₂SiF₆) 21645-51-2, Aluminum hydroxide (Al(OH)₃), uses 127496-31-5, Wollastokup 409307-11-5, RTN
 RL: MOA (Modifier or additive use); USES (Uses)
 (filler; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 1344-28-1, Alumina, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fused, white fused, heat-treated; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 1321-64-8, Pentachloronaphthalene 1335-88-2, Tetrachloronaphthalene 7439-89-6, Iron, uses 7439-92-1, Lead, uses 7440-31-5, Tin, uses 7440-32-6, Titanium, uses 7440-36-0, Antimony, uses 7440-43-9, Cadmium, uses 7440-48-4, Cobalt, uses 7440-69-9, Bismuth, uses 7447-40-7, Potassium chloride, uses 7647-14-5, Sodium chloride, uses 7786-30-3, Magnesium chloride, uses 9002-86-2, Polyvinyl chloride 13755-29-8, Sodium tetrafluoroborate 14075-53-7, Potassium tetrafluoroborate 39384-00-4, Silicon fluoride 60996-20-5, Potassium cryolite 63692-16-0, Ammonium cryolite
 RL: MOA (Modifier or additive use); USES (Uses)
 (grinding aid; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 1309-48-4, Magnesite, uses 1312-81-8, Lanthanum oxide 1313-97-9, Neodymium oxide 1313-99-1, Nickel oxide, uses 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconia, uses 1314-36-9, Yttria, uses 1332-37-2, Iron oxide, uses 13463-67-7, Titania, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (metal oxide modifier; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 1320-67-8, Polysolv MPM 2855-13-2, Isophorone diamine 25068-38-6, Epon 828 84540-57-8, PM Acetate
 RL: MOA (Modifier or additive use); USES (Uses)
 (polymer coating component; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 2530-85-0, A 174
 RL: MOA (Modifier or additive use); USES (Uses)

(silane coupling agent; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)

- IT 32131-17-2, Nylon 6,6, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (staple fiber, abrasive backing; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 119313-12-1, Irgacure 369
 RL: MOA (Modifier or additive use); USES (Uses)
 (surfactant; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- IT 7727-43-7, Barium sulfate
 RL: MOA (Modifier or additive use); USES (Uses)
 (filler; manufacture of abrasive agglomerate particles and radiation curable polymer-abrasive composite articles)
- RN 7727-43-7 HCAPLUS
- CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 9 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2002:293910 HCAPLUS Full-text

DOCUMENT NUMBER: 136:313541

TITLE: Method for coating of metallic surfaces with an aqueous composition, the aqueous composition and use of the coated substrates

INVENTOR(S): Bittner, Klaus; Domes, Heribert; Wietzoreck, Hardy; Jung, Christian

PATENT ASSIGNEE(S): Chemetall Gmbh, Germany; Shimakura, Toshiaki

SOURCE: PCT Int. Appl., 41 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2002031222	A2	20020418	WO 2001-EP11506	20011005 <--
WO 2002031222	A3	20020627		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,			

10/596,007

HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,
IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002015009	A	20020422	AU 2002-15009	20011005 <--
CA 2426442	A1	20030408	CA 2001-2426442	20011005 <--
EP 1330498	A2	20030730	EP 2001-983526	20011005 <--
EP 1330498	B1	20060524		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

AU 2002215009	B2	20060525	AU 2002-215009	20011005 <--
AT 327291	T	20060615	AT 2001-983526	20011005 <--
ES 2265445	T3	20070216	ES 2001-983526	20011005 <--
DE 10161383	A1	20020822	DE 2001-10161383	20011008 <--
DE 10161383	B4	20060614		
ZA 2003002863	A	20040413	ZA 2003-2863	20030411 <--
ZA 2003002865	A	20040413	ZA 2003-2865	20030411 <--
US 20040054044	A1	20040318	US 2003-362626	20030910 <--
US 20070190259	A1	20070816	US 2007-712109	20070228 <--

PRIORITY APPLN. INFO.:			DE 2000-10050532	A	20001011 <--
			WO 2001-EP11506	W	20011005 <--
			US 2003-362626	B1	20030910 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 19 Apr 2002

AB The invention relates to a method for coating of a metallic surface with a composition. The composition contains the following in addition to water: (a) ≥ 1 organic film containing ≥ 1 polymer which is water-soluble or is dispersed in water; (b) a quantity of cations and/or hexafluoro complexes of cations selected from a group comprising Ti, Zr, Hf, Si, Al, and B; and (c) ≥ 1 inorg. compound in a particle form with an average particle diameter of 0.005-0.2 μm , measured with a scanning electron microscope. The clean metallic surface is brought into contact with the aqueous composition, and a film containing particles is formed on the metallic surface. After drying, the dry film has a layer thickness of 0.01-10 μm . The invention also relates to a corresponding aqueous composition.

IPCI C23C0022-00 [ICM,7]

IPCR B05D0003-06 [N,C*]; B05D0003-06 [N,A]; C09D0005-08 [I,C*]; C09D0005-08 [I,A]; C23C0022-05 [I,C*]; C23C0022-34 [I,A]

CC 56-6 (Nonferrous Metals and Alloys)

IT Galvanized steel

RL: TEM (Technical or engineered material use); USES (Uses)
(aqueous composition for coating of)

IT Coating process

(aqueous composition for coating of metallic surfaces)

IT Paraffin waxes, uses

Polysiloxanes, uses

Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(in aqueous composition for coating of metallic surfaces)

IT Aluminum alloy, base

Copper alloy, base

Iron alloy, base

Magnesium alloy, base

Nickel alloy, base

Tin alloy, base

Titanium alloy, base

Zinc alloy, base

RL: TEM (Technical or engineered material use); USES (Uses)

(aqueous composition for coating of)

IT 7429-90-5, Aluminum, uses 7439-89-6, Iron, uses 7439-95-4, Magnesium, uses 7440-02-0, Nickel, uses 7440-31-5, Tin, uses 7440-32-6, Titanium, uses 7440-50-8, Copper, uses 7440-66-6, Zinc, uses 12597-69-2, Steel, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(aqueous composition for coating of)

IT 7631-86-9, Silica, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(colloidal; in aqueous composition for coating of metallic surfaces)

IT 57-55-6, Propylene glycol, uses 74-85-1D, Ethylene, polymer with acrylate 77-92-9, Citric acid, uses 79-10-7D, Acrylic acid, esters, polymer with ethylene 100-37-8, Diethylethanolamine 102-71-6, Triethanolamine, uses 108-01-0, Dimethylethanolamine 110-91-8, Morpholine, uses 598-62-9, Manganese carbonate 1306-38-3, Cerium oxide (CeO₂), uses 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconium oxide, uses 1314-36-9, Yttrium oxide, uses 1344-28-1, Alumina, uses 2530-83-8, 3-

Glycidyloxypropyltrimethoxysilane 7291-09-0, Vinylsilane

7727-43-7, Barium sulfate 9002-86-2, PVC

9002-89-5, Polyvinyl alcohol 9002-98-6 9003-01-4, Polyacrylic acid 9003-07-0, Polypropylene 9003-39-8, Polyvinyl pyrrolidone 9003-53-6, Polystyrene 12021-95-3, Hydrogen zirconium fluoride (H₂ZrF₆)

13463-67-7, Titania, uses 13598-78-2, Aminosilane

13822-56-5, Aminopropyltrimethoxy silane 17439-11-1,

Hexafluorotitanic acid (H₂TiF₆) 21645-51-2, Aluminum hydroxide, uses

22829-17-0, Zirconium ammonium carbonate 25265-75-2, Butanediol

26914-14-7, Diethylthiourea 27936-88-5 59269-51-1, Polyvinyl phenol

RL: TEM (Technical or engineered material use); USES (Uses)

(in aqueous composition for coating of metallic surfaces)

IT 1343-98-2, Silicic acid

RL: TEM (Technical or engineered material use); USES (Uses)

(pyrogenous; in aqueous composition for coating of metallic surfaces)

IT 9002-88-4, Polyethylene

RL: TEM (Technical or engineered material use); USES (Uses)

(wax; in aqueous composition for coating of metallic surfaces)

IT 77-92-9, Citric acid, uses 7727-43-7,

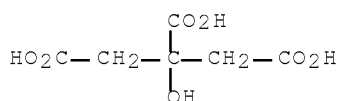
Barium sulfate

RL: TEM (Technical or engineered material use); USES (Uses)

(in aqueous composition for coating of metallic surfaces)

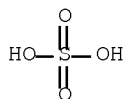
RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 10 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2002:293775 HCAPLUS Full-text
 DOCUMENT NUMBER: 136:326996
 TITLE: Method for pretreating and subsequently coating metallic surfaces with a paint-type coating prior to forming and use of substrates coated in this way
 INVENTOR(S): Shimakura, Toshiaki; Bittner, Klaus; Domes, Heribert; Wietzoreck, Hardy; Jung, Christian
 PATENT ASSIGNEE(S): Chemteall Gmbh, Germany
 SOURCE: PCT Int. Appl., 115 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 6
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002031065	A2	20020418	WO 2001-EP11738	20011010 <--
WO 2002031065	A3	20020627		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002015940	A	20020422	AU 2002-15940	20011010 <--
CA 2425403	A1	20030408	CA 2001-2425403	20011010 <--
EP 1330499	A2	20030730	EP 2001-986707	20011010 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
EP 1642939	A2	20060405	EP 2005-17734	20011010 <--
EP 1642939	A3	20101020		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
US 20040009300	A1	20040115	US 2003-362388	20030701 <--
PRIORITY APPLN. INFO.:			DE 2000-10050532	A 20001011 <--
			DE 2001-10110830	A 20010306 <--
			DE 2001-10119606	A 20010421 <--
			DE 2000-10050537	A 20001011 <--
			DE 2001-10127721	A 20010607 <--

EP 2001-976296 A3 20011010 <--
 WO 2001-EP11738 W 20011010 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 19 Apr 2002

AB The invention relates to a method for coating a metallic strip. The strip or optionally, the strip sections produced from said strip in the subsequent process, is/are coated first with at least one anticorrosion layer and then with at least one layer of a paint-like coating containing polymers and/or with at least one paint coating. After being coated with at least one anticorrosion layer or after being coated with at least one layer of a paint-like coating and/or with at least one paint coating, the strip is divided into strip sections. The coated strip sections are then formed, joined and/or coated with at least one (other) paint-like coating and/or paint coating. At least one of the anticorrosion layers is formed by coating the surface with an aqueous dispersion containing the following in addition to water: (a) at least one organic film former containing at least one water-soluble or water-dispersed polymer; (b) a quantity of cations and/or hexa- or tetrafluoro complexes of cations chosen from a group consisting of titanium, zirconium, hafnium, silicon, aluminum and boron; and (c) at least one inorg. compound in particle form with an average particle diameter measured on a scanning electron microscope of 0.005 to 0.2 μm . The clean metallic surface is brought into contact with the aqueous composition and a film containing particles is formed on the metallic surface, this film then being dried and optionally also hardened, the dried and optionally, also hardened film having a layer thickness of 0.01 to 10 μm . The speed of coating metal objects with complex profiles is high using this process and need of Cr6+ compds. and acids is reduced. The coated products are useful in manufacture of automobile bodies, aircraft, and spacecraft.

IPC1 C09D0005-00 [ICM,7]

IPCR B05D0003-06 [N,C*]; B05D0003-06 [N,A]; B05D0007-16 [I,C*]; B05D0007-16 [I,A]; C09D0005-08 [I,C*]; C09D0005-08 [I,A]; C23C0022-05 [I,C*]; C23C0022-34 [I,A]

CC 42-2 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55, 56

IT Silanes

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(amino, anticorrosive primer component; pretreating with anticorrosive primers and subsequently coating metallic surfaces with a paint-type coating prior to forming)

IT Silanes

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(epoxy, anticorrosive primer component; pretreating with anticorrosive primers and subsequently coating metallic surfaces with a paint-type coating prior to forming)

IT Amines, uses

Epoxides

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(silyl, anticorrosive primer component; pretreating with anticorrosive primers and subsequently coating metallic surfaces with a paint-type coating prior to forming)

IT 674-70-4 674-71-5 763-26-8 1429-50-1,
 Ethylenediaminetetramethylenephosphonic acid 3071-50-9 4546-06-9,
 p-Xylylenediphosphonic acid 4671-77-6, 1,4-Butanediphosphonic acid
 4721-22-6, 1,6-Hexanediphosphonic acid 5943-21-5,
 1,10-Decanediphosphonic acid 5943-66-8, 1,8-Octanediphosphonic acid
 6419-19-8, Aminotrimethylenephosphonic acid 7450-59-1,
 1,12-Dodecanediphosphonic acid 15827-60-8,
 Diethylenetriaminepentamethylenephosphonic acid 23605-74-5 26914-14-7,
 Diethylthiourea 37971-36-1 50421-68-6 74748-16-6 85590-01-8

151861-26-6, 1,14-Tetradecanediphosphonic acid 159239-33-5,
 12-Mercaptododecylphosphonic acid 198065-35-9,
 12-(Ethylamino)dodecanephosphonic acid 210237-15-3 216106-45-5
 378232-64-5 412916-50-8 412916-52-0 412916-54-2

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(addnl. corrosion inhibitor; pretreating with anticorrosive primers and subsequently coating metallic surfaces with a paint-type coating prior to forming)

IT 50-21-5D, Lactic acid, titanium complexes 77-92-9,
Citric acid, uses 598-62-9, Manganese carbonate 1306-38-3,
 Cerium dioxide, uses 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconia,
 uses 1314-36-9, Yttrium oxide, uses 1343-98-2, Silicic acid
 1344-28-1, Aluminum oxide, uses 2530-83-8, 3-
Glycidyloxypropyltrimethoxysilane 4619-20-9D, zirconium
 complexes 7429-90-5D, Aluminum, fluoro complexes 7439-89-6D, Iron,
 compds. 7439-91-0D, Lanthanum, salts 7439-96-5D, Manganese, salts
 7439-98-7D, Molybdenum, compds. 7440-02-0D, Nickel, compds.
 7440-21-3D, Silicon, fluoro complexes 7440-32-6D, Titanium, fluoro
 complexes 7440-33-7D, Tungsten, compds. 7440-42-8D, Boron, fluoro
 complexes 7440-47-3D, Chromium, compds. 7440-48-4D, Cobalt, compds.
 7440-58-6D, Hafnium, fluoro complexes 7440-67-7D, Zirconium, fluoro
 complexes 7440-70-2D, Calcium, salts 7585-20-8, Zirconium acetate
 7631-86-9, Silica, uses 7727-43-7, Barium
sulfate 12021-95-3 13463-67-7, Titania, uses 13822-56-5, 3-
Aminopropyltrimethoxysilane 15879-01-3, Triethanolamine titanate
 17439-11-1 21645-51-2, Aluminum hydroxide, uses 22829-17-0, Ammonium
 zirconium carbonate 38497-57-3, Titanium acetate 73215-17-5
 133962-46-6

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(anticorrosive primer component; pretreating with anticorrosive primers and subsequently coating metallic surfaces with a paint-type coating prior to forming)

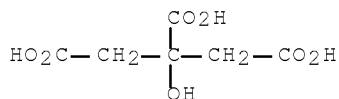
IT 77-92-9, Citric acid, uses 7727-43-7,
Barium sulfate

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(anticorrosive primer component; pretreating with anticorrosive primers and subsequently coating metallic surfaces with a paint-type coating prior to forming)

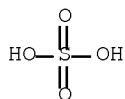
RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 11 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2002:335242 HCAPLUS Full-text

DOCUMENT NUMBER: 138:175688

TITLE: The influence of liquid binder on the liquid mobility and preparation of spherical granules by the process of extrusion/spheronisation

AUTHOR(S): Boutell, S.; Newton, J. M.; Bloor, J. R.; Hayes, G.

CORPORATE SOURCE: Department of Pharmaceutics, University of London, The School of Pharmacy, London, WC1N 1AX, UK

SOURCE: International Journal of Pharmaceutics (2002), 238(1-2), 61-76

CODEN: IJPHDE; ISSN: 0378-5173

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 06 May 2002

AB The influence of the type of liquid on the movement of water and the performance of the preparation of pellets by the process of extrusion/spheronisation has been studied. Liquid movement was assessed by a pressure membrane technique and by extrusion, while the pellet properties were assessed in the terms of their median size, size range (interquartile range), roundness (by a two-dimensional shape factor) and porosity. The model formulations studied were microcryst. cellulose (SCC) and mixts. of SCC and barium sulfate at 20, 50 and 80% levels. The liqs. were water, a 25% solution of glycerol in water and an anionic surfactant (sodium lauryl sulfate) below its c.m.c. and two concns. (0.01 and 0.0001%) of a non-ionic surfactant (Pluronic F68). The presence of the different liqs. changed the ease and extent with which the liquid could be removed (drying) and reabsorbed (wetting), resulting in lower levels of saturation with the glycerol solution and considerably increased levels of saturation with the surfactants. Changes in liquid movement during extrusion, were influenced more by the level of liquid and the rate of extrusion, than by its composition. The level of liquid was also an important factor in terms of the force necessary to extrude the different formulations. For a given level of liquid, the glycerol solution tended to increase extrusion force, while the surfactant solns. tended to decrease the extrusion force. The liquid levels, particulate composition and rate of extrusion were important in terms of pellet size, size range, roundness and porosity. The low level of liquid involved produced elongated pellets. The wet formulations produced larger, agglomerated pellets with a wide particle size range and a higher porosity. The lowest porosity pellets were prepared from mixts. with no or a low barium sulfate content while the highest levels of porosity were found with equal parts MCC and barium sulfate. In general, for equivalent liquid contents, pellets made with the glycerol solution were more porous than those prepared with water while the opposite

was true for pellets made with surfactants. Although the different liqs. influenced water movements, they did not prevent the formation of high quality pellets by the process of extrusion/spheronisation.

CC 63-6 (Pharmaceuticals)

IT Drug delivery systems

(granules; liquid binder effects on liquid mobility and preparation of spherical granules by the process of extrusion/spheronisation)

IT Porosity

Surfactants

Wetting

(liquid binder effects on liquid mobility and preparation of spherical granules by the process of extrusion/spheronisation)

IT 56-81-5, Glycerol, biological studies 151-21-3, Sodium lauryl sulfate, biological studies 7727-43-7, Barium sulfate

7732-18-5, Water, biological studies 9004-34-6, Avicel PH101, biological studies 106392-12-5, Pluronic F68

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(liquid binder effects on liquid mobility and preparation of spherical granules by the process of extrusion/spheronisation)

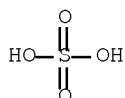
IT 7727-43-7, Barium sulfate

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(liquid binder effects on liquid mobility and preparation of spherical granules by the process of extrusion/spheronisation)

RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 12 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1999:753011 HCAPLUS Full-text

DOCUMENT NUMBER: 131:336135

TITLE: Co-processed compositions of acids and water soluble crystalline compounds and related products and methods

INVENTOR(S): Le, Anh; Huzinec, Robert

PATENT ASSIGNEE(S): SPI Polyols, Inc., USA; Hershey Foods Corporation

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9959427	A1	19991125	WO 1999-US11072	19990519 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2332458	A1	19991125	CA 1999-2332458	19990519 <--
AU 9940879	A	19991206	AU 1999-40879	19990519 <--
EP 1079701	A1	20010307	EP 1999-924359	19990519 <--
R: DE, FR, GB				
PRIORITY APPLN. INFO.:			US 1998-80970	A 19980519 <--
			WO 1999-US11072	W 19990519 <--

ED Entered STN: 26 Nov 1999

AB The invention includes co-processed compsns. containing at least one acidulant and at least one water-soluble crystalline compound for use in shelf-stable low-moisture comestible, confectionery, dentifrice, or pharmaceutical products containing acid-sensitive additives. The invention also includes methods of minimizing the degradation of an acid-sensitive additive by at least one acidulent in low-moisture comestible, confectionery, dentifrice, or pharmaceutical products that contain at least one acidulent by using the co-processed compsns. of the present invention. The invention also includes methods of increasing salivation and methods of removing or preventing the deposition of plaque on teeth using the co-processed compsns. of the present invention. Examples of low-moisture comestible, confectionery, pharmaceutical or dentifrice products in which the co-processed compsns. may be used are chewing gum, bubble gum, instant beverages, frozen desserts, toothpaste and dental floss. IPCI A23G0003-00 [ICM]; A23G0003-30 [ICS]

IPCR A23G0003-00 [I,C*]; A23G0003-00 [I,A]; A23G0003-34 [I,C*]; A23G0003-36 [I,A]; A23G0003-42 [I,A]; A23G0004-00 [I,C*]; A23G0004-00 [I,A]; A23G0004-06 [I,C*]; A23G0004-06 [I,A]; A23G0004-10 [I,A]; A23G0004-18 [I,C*]; A23G0004-20 [I,A]; A23L0003-3454 [I,C*]; A23L0003-3463 [I,C*]; A23L0003-3481 [I,A]; A23L0003-3508 [I,A]; A23L0003-358 [I,A]; A61K0008-30 [I,C*]; A61K0008-36 [I,A]; A61K0008-60 [I,A]; A61K0008-72 [I,C*]; A61K0008-73 [I,A]; A61Q0011-00 [I,C*]; A61Q0011-00 [I,A]

CC 17-6 (Food and Feed Chemistry)
Section cross-reference(s): 62, 63

IT Resins
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(abrasives; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)

IT Salts, biological studies
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acid; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)

IT Chewing gum
(anticariogenic dentifrices; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)

IT Dentifrices
Dentifrices
(chewing gums, anticariogenic; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)

- IT Dentifrices
Dentifrices
(chewing gums; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)
- IT Abrasives
Agglomerates (clustered mass)
Bakery products
Chewing gum
Confectionery
Dentifrices
Drugs
Flavor
Food additives
Frozen desserts
Health products
Jams and Jellies
Saliva
Sweetening agents
(co-processed compsns. of acids and water soluble cryst . compds. and related products and methods)
- IT Acids, biological studies
Alditols
Calcined kaolin
Carbohydrates, biological studies
Carboxylic acids, biological studies
Oligosaccharides, biological studies
Pumice
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(co-processed compsns. of acids and water soluble cryst . compds. and related products and methods)
- IT Dentifrices
(dental floss; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)
- IT Chewing gum
(dentifrices, anticariogenic; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)
- IT Chewing gum
Chewing gum
(dentifrices; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)
- IT Carboxylic acids, biological studies
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dicarboxylic; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)
- IT Drug delivery systems
(granules; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)
- IT Candy
(hard; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)
- IT Beverages
(instant; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)
- IT Tooth
(plaque; co-processed compsns. of acids and water soluble crystalline compds. and related products and methods)
- IT Carboxylic acids, biological studies

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(tricarboxylic acids; co-processed compos. of acids and water soluble crystalline compds. and related products and methods)

IT 1335-30-4, Aluminum silicate

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(calcined; co-processed compos. of acids and water soluble crystalline compds. and related products and methods)

IT 50-21-5, biological studies 50-70-4, Sorbitol, biological studies 50-81-7, L-Ascorbic acid, biological studies 50-99-7, Dextrose, biological studies 57-48-7, D-Fructose, biological studies 57-50-1, Sucrose, biological studies 63-42-3, Lactose 69-65-8, Mannitol 69-79-4, Maltose 77-92-9, biological studies 79-14-1, biological studies 87-69-4, biological studies 87-81-0, D-Tagatose 87-99-0, Xylitol 110-15-6, Butanedioic acid, biological studies 110-17-8, 2-Butenedioic acid (2E)-, biological studies 110-94-1, Pentanedioic acid 124-04-9, Hexanedioic acid, biological studies 144-55-8, Sodium bicarbonate, biological studies 149-32-6, Erythritol 471-34-1, Calcium carbonate, biological studies 585-86-4, Lactitol 585-88-6, Maltitol 1344-28-1, Aluminum oxide (Al₂O₃), biological studies 6915-15-7, Malic acid 7601-90-3, Perchloric acid, biological studies 7631-86-9, Silica, biological studies 7647-01-0, Hydrochloric acid, biological studies 7664-38-2, Phosphoric acid, biological studies 7664-93-9, Sulfuric acid, biological studies 7697-37-2, Nitric acid, biological studies 7727-43-7, Barium sulfate 9053-46-7, Lycasin 10043-35-3, Boric acid, biological studies 10101-52-7, Zirconium silicate 14807-96-6, Talc, biological studies 64519-82-0, Isomalt 66513-02-8, Kerolite (Mg₃H₂(SiO₃)₄.xH₂O) RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(co-processed compos. of acids and water soluble cryst . compds. and related products and methods)

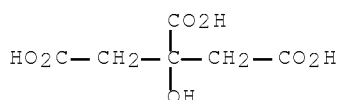
IT 77-92-9, biological studies 7727-43-7, Barium sulfate

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(co-processed compos. of acids and water soluble cryst . compds. and related products and methods)

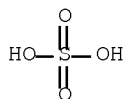
RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 13 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1999:281961 HCAPLUS Full-text
 DOCUMENT NUMBER: 130:316665
 TITLE: Radiopaque paint for medical stents
 INVENTOR(S): Giordano, Russell A.; Kopp, Kevin C.
 PATENT ASSIGNEE(S): Boston University, USA; Illinois University
 SOURCE: U.S., 12 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5897696	A	19990427	US 1997-801122	19970214 <--
PRIORITY APPLN. INFO.:			US 1997-801122	19970214 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 07 May 1999

AB A process for preparing a water-soluble, radio-opaque paint for marking acrylic resin dental stents includes the steps of preparing a solution comprising EtOH 50 mL, glycerol 6.4 g, benzaldehyde 4, glacial acetic acid 1 mL, and hydroxypropyl cellulose 0.15 g. A radio-opaque powder, such as 50 g of barium sulfate powder having a mean particle diameter of about 10 μm , is then added to the solution. The solution is then mixed to obtain the paint, wherein the paint has a uniform dispersion of the radio-opaque powder. This paint may be used on dental stents to locate and guide placement of dental implants. The uniform dispersion may be obtained by using ultrasound. Further, the method comprises applying the paint to a dental stent; placing the stent in contact with a patient's teeth; taking a radiog. image of the stent and the patient's teeth. The stent then is removed from the patient's teeth, and the paint is removed from the stent.

INCL 106035000

IPCI G21F0001-10 [ICM,6]; G21F0001-00 [ICM,6,C*]

IPCR G21F0001-00 [I,C*]; G21F0001-02 [I,A]

NCL 106/035.000; 106/181.100; 106/187.100; 106/192.100; 106/194.100;
 106/194.200; 106/198.100; 106/287.230; 106/287.240; 106/287.350;
 106/461.000; 106/471.000; 252/478.000

CC 63-7 (Pharmaceuticals)

ST radiopaque paint dental stent barium sulfate

IT Sonication

(production of radiopaque paint compos for dental stents with)

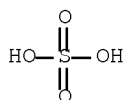
IT Medical goods

(stents; production of radiopaque paint compos for dental stents)

IT 56-81-5, Glycerol, biological studies

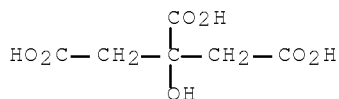
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (liquid adhesion thickener; radiopaque paint compos for dental stents)
- IT 7727-43-7, Barium sulfate
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (powder; radiopaque paint compos for dental stents)
- IT 100-52-7, Benzaldehyde, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (preservative; radiopaque paint compos for dental stents)
- IT 50-21-5, Lactic acid, biological studies 64-17-5, Ethanol, biological studies 64-18-6, Formic acid, biological studies 64-19-7, Glacial acetic acid, biological studies 65-85-0, Benzoic acid, biological studies 77-92-9, Citric acid, biological studies 87-69-4, Tartaric acid, biological studies 6915-15-7, Malic acid 7664-38-2, Phosphoric acid, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (radiopaque paint compos for dental stents)
- IT 9004-64-2, Hydroxypropyl cellulose
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (stabilizer; radiopaque paint compos for dental stents)
- IT 7727-43-7, Barium sulfate
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (powder; radiopaque paint compos for dental stents)
- RN 7727-43-7 HCAPLUS
- CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

- IT 77-92-9, Citric acid, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (radiopaque paint compos for dental stents)
- RN 77-92-9 HCAPLUS
- CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 14 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1999:61220 HCAPLUS Full-text

DOCUMENT NUMBER: 130:112369

10/596,007

TITLE: Ammunition for color marking
 INVENTOR(S): Le Pezennec, Jean-Pierre; Thepin, Herve; Hervieu, Ghislain
 PATENT ASSIGNEE(S): Giat Industries, Fr.
 SOURCE: Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 890819	A1	19990113	EP 1998-111425	19980622 <--
EP 890819	B1	20021023		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2765869	A1	19990115	FR 1997-8704	19970709 <--
FR 2765869	B1	19990813		
PRIORITY APPLN. INFO.:			FR 1997-8704	A 19970709 <--

ED Entered STN: 29 Jan 1999

AB The color-marking ammunition consists of a cylindrical casing containing a marking composition and a dispersion explosive charge. The explosive is placed in the center around the casing axis. The marking composition consists of ≥ 1 pigment in the form of a coloring powder dispersed in water, a water-soluble binder, a water-soluble rheol. charge for agglomeration of the pigment and increase of the mixture viscosity, and an anti-gelling agent. IPCI F42B0012-36 [ICM,6]; F42B0012-02 [ICM,6,C*]; C06B0023-00 [ICS,6]

IPCR C06B0023-00 [I,C*]; C06B0023-00 [I,A]; F42B0012-02 [I,C*]; F42B0012-40 [I,A]

CC 50-3 (Propellants and Explosives)

ST color marking ammunition; pyrotech compon color marking

IT Gums and Mucilages

(binder; in color-marking ammunition)

IT Glycerides, uses

Polysaccharides, uses

Rubber, uses

RL: MOA (Modifier or additive use); USES (Uses)

(binder; in color-marking ammunition)

IT Pyrotechnic compositions

(color-marking ammunition)

IT 9004-34-6D, Cellulose, derivative, uses

RL: MOA (Modifier or additive use); USES (Uses)

(binder; in color-marking ammunition)

IT 471-34-1, Calcium carbonate, uses 7727-43-7, Barium sulfate

RL: MOA (Modifier or additive use); USES (Uses)

(rheol. modifier; in color-marking ammunition)

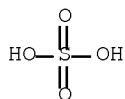
IT 7727-43-7, Barium sulfate

RL: MOA (Modifier or additive use); USES (Uses)

(rheol. modifier; in color-marking ammunition)

RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 15 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1999:712824 HCAPLUS Full-text

DOCUMENT NUMBER: 132:36592

TITLE: X-ray shielding materials based on a polymer
binder

AUTHOR(S): Sumenkov, K. F.; Gorelov, Yu. P.; Lebedev, V. P.

CORPORATE SOURCE: Russia

SOURCE: Plasticheskie Massy (1999), (6), 33-34

CODEN: PLMSAI; ISSN: 0554-2901

PUBLISHER: ZAO NP "Plasticheskie Massy"

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 09 Nov 1999

AB Hot pressing, compounding, and caking are compared in production of filled
(PbO, BaSO₄, (NH₄)₄MO₄) x-ray shielding materials from unsatd. polyesters,
PVC, and epoxy resins. Hot pressing gives the best results.

CC 38-3 (Plastics Fabrication and Uses)

ST hot pressing x ray shield polymer composite prodn

IT Sintering

(hot pressing; x-ray shielding materials based on polymer
binders)

IT Polyesters, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)

(unsatd.; x-ray shielding materials based on polymer
binders)

IT Agglomeration

Radiation shielding

X-ray

(x-ray shielding materials based on polymer binders
)

IT Epoxy resins, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)

(x-ray shielding materials based on polymer binders
)

IT 1309-60-0, Lead oxide 7727-43-7, Barium

sulfate 13106-76-8, DiAmmonium molybdate

RL: MOA (Modifier or additive use); USES (Uses)

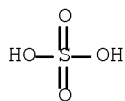
(x-ray shielding materials based on polymer binders
)

IT 9002-86-2, PVC 9011-14-7, Poly(methyl methacrylate) 25037-66-5, PN 12

25068-38-6, ED 20

RL: POF (Polymer in formulation); TEM (Technical or engineered material

use); USES (Uses)
 (x-ray shielding materials based on polymer binders
)
 IT 7727-43-7, Barium sulfate
 RL: MOA (Modifier or additive use); USES (Uses)
 (x-ray shielding materials based on polymer binders
)
 RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

L123 ANSWER 16 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1998:149528 HCAPLUS Full-text
 DOCUMENT NUMBER: 128:182838
 ORIGINAL REFERENCE NO.: 128:36051a,36054a
 TITLE: Agglomeration of industrial powder wastes
 and fines using hardened sulfate as the binder
 INVENTOR(S): Smith, Neil L.; Ryan, Peter; Mitchell, Carey
 PATENT ASSIGNEE(S): Southwind Enterprises Inc., Can.
 SOURCE: U.S., 8 pp., Cont.-in-part of U.S. Ser. No. 606,586.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5722929	A	19980303	US 1996-768255	19961217 <--
US 5516976	A	19960514	US 1994-295056	19940826 <--
WO 9827238	A1	19980625	WO 1997-CA973	19971215 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9854716	A	19980715	AU 1998-54716	19971215 <--
AU 723122	B2	20000817		
ZA 9711242	A	19980717	ZA 1997-11242	19971215 <--
EP 953060	A1	19991103	EP 1997-951017	19971215 <--
EP 953060	B1	20020508		
R: BE, DE, ES, FR, GB, SE, FI				
CA 2265873	C	20000704	CA 1997-2265873	19971215 <--
IN 1997DE03631	A	20060127	IN 1997-DE3631	19971216 <--
IN 223099	A1	20080919		

10/596,007

MX 9905681	A	20000331	MX 1999-5681	19990617 <--
PRIORITY APPLN. INFO.:			US 1994-295056	A1 19940826 <--
			US 1996-606586	A2 19960226 <--
			US 1996-768255	A 19961217 <--
			WO 1997-CA973	W 19971215 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 12 Mar 1998

AB Metallurgical fines and powdered industrial wastes are agglomerated in the presence of sulfates by reacting the sulfate with water and optionally adding an alkaline-earth metal compound and/or H₂SO₄ to obtain the inorg. binder of water-insol. CaSO₄ type. The typical mixture contains metallurgical fines, lime, and water, and is controlled with the addition of sulfates and/or H₂SO₄ wastes to obtain the hardening with CaSO₄ or a similar binder. The wet mixt . is extruded (or cast) and held for hardening, followed by recycling to an extraction process or by disposal. Smelter dust from electrostatic precipitation apparatus was mixed with water and hydrated dolomitic lime, and the resulting thick paste was extruded to obtain hardened rods containing hydrated NiSO₄ and CaSO₄ in the binder.

INCL 588257000

IPCI C22B0001-243 [ICM,6]; C22B0001-14 [ICM,6,C*]

IPCR C22B0001-14 [I,C*]; C22B0001-24 [I,A]; C22B0001-243 [I,A]

NCL 588/257.000; 075/747.000; 588/252.000

CC 54-2 (Extractive Metallurgy)
Section cross-reference(s): 60

ST industrial powder waste bonding hardened sulfate; calcium sulfate binder extrusion waste powder; smelter dust bonding aq lime sulfate

IT Lime (chemical)
RL: MOA (Modifier or additive use); USES (Uses)
(binders with; agglomeration of industrial wastes and fines using calcium sulfate type binder)

IT Sulfates, uses
RL: MOA (Modifier or additive use); USES (Uses)
(binders with; agglomeration of industrial wastes and fines using hardened sulfate type binder)

IT Lime (chemical)
RL: MOA (Modifier or additive use); USES (Uses)
(dolomitic; agglomeration of industrial wastes and fines using calcium sulfate type binder)

IT Wastes
(metallurgical, bonding of; agglomeration of industrial wastes and fines using calcium sulfate type binder)

IT Metallurgy
(wastes, bonding of; agglomeration of industrial wastes and fines using calcium sulfate type binder)

IT Smelting
(wastes; agglomeration of industrial wastes and fines using calcium sulfate type binder)

IT 7778-18-9, Calcium sulfate
RL: MOA (Modifier or additive use); USES (Uses)
(binders with; agglomeration of industrial wastes and fines using calcium sulfate type binder)

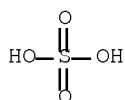
IT 7487-88-9, Magnesium sulfate, uses 7664-93-9, Sulfuric acid, uses 7720-78-7, Ferrous sulfate 7727-43-7, Barium sulfate 7733-02-0, Zinc sulfate 7758-98-7, Copper sulfate, uses 7759-02-6, Strontium sulfate 7785-87-7, Manganese sulfate 7786-81-4, Nickel sulfate 10028-22-5, Ferric sulfate 10031-62-6, Tin sulfate 10043-01-3, Aluminum sulfate 10124-43-3, Cobalt sulfate 10294-26-5, Silver sulfate 14489-25-9, Chromium sulfate 16785-81-2, Vanadium sulfate 18130-44-4, Titanium sulfate

RL: MOA (Modifier or additive use); USES (Uses)
 (binders with; agglomeration of industrial wastes
 and fines using hardened sulfate type binder)

IT 16389-88-1, Dolomite, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (powder, binders with; agglomeration of industrial
 wastes and fines using hardened sulfate type binder)

IT 7727-43-7, Barium sulfate
 RL: MOA (Modifier or additive use); USES (Uses)
 (binders with; agglomeration of industrial wastes
 and fines using hardened sulfate type binder)

RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
 (1 CITINGS)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 17 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1997:557667 HCAPLUS Full-text
 DOCUMENT NUMBER: 127:225330
 ORIGINAL REFERENCE NO.: 127:43833a,43836a
 TITLE: Radio-opaque paint for medical stents
 INVENTOR(S): Giordano, Russell A.; Kopp, Kevin C.
 PATENT ASSIGNEE(S): Trustees of Boston University, USA; Board of Trustees
 of the University of Illinois
 SOURCE: PCT Int. Appl., 29 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9729794	A1	19970821	WO 1997-US2453	19970214 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9721281	A	19970902	AU 1997-21281	19970214 <--
PRIORITY APPLN. INFO.:			US 1996-11793P	P 19960216 <--
			WO 1997-US2453	W 19970214 <--
ED Entered STN: 01 Sep 1997				

AB A process for preparing a water-soluble, radio-opaque paint for marking acrylic resin dental stents includes the steps of preparing a solution comprising 50 mL of ethanol, 6.4 g of glycerol, 4.0 mL of benzaldehyde; 1.0 mL of glacial acetic acid, and 0.15 g of hydroxy Pr cellulose. A radio-opaque powder, such as 50 g of barium sulfate powder having a mean particle diameter of about 10 μm , is then added to the solution. The solution is then mixed to obtain the paint, wherein the paint has a uniform dispersion of the radio-opaque powder. This paint may be used on dental stents to locate and guide placement of dental implants. The method may include the steps of preparing a water-soluble, radio-opaque paint for marking dental stents comprising the steps of preparing a solution described above; adding a radio-opaque powder, such as 50 g of barium sulfate powder; and mixing the solution to obtain the paint, wherein the paint has a uniform dispersion of the radio-opaque powder. The uniform dispersion may be obtained by using ultrasound. Further, the method comprises applying the paint to a dental stent; placing the stent in contact with a patient's teeth; taking a radiog. image of the stent and the patient's teeth. The stent then is removed from the patient's teeth, and the paint is removed from the stent. Formulation of a radio-opaque, water-soluble paint having a uniform dispersion of radio-opaque powder is given. IPCI A61L0031-00

[ICM,6]; A61K0006-00 [ICS,6]

IPCR A61K0006-00 [I,C*]; A61K0006-00 [I,A]; A61L0031-08 [I,C*]; A61L0031-08 [I,A]; A61L0031-14 [I,C*]; A61L0031-18 [I,A]

CC 63-7 (Pharmaceuticals)

IT 50-21-5, Lactic acid, biological studies 64-18-6, Formic acid, biological studies 64-19-7, Acetic acid, biological studies 65-85-0, Benzoic acid, biological studies 77-92-9, Citric acid, biological studies 87-69-4, Tartaric acid, biological studies 6915-15-7, Malic acid 7664-38-2, Phosphoric acid, biological studies 7727-43-7, Barium sulfate 9004-64-2, HydroxyPropyl cellulose

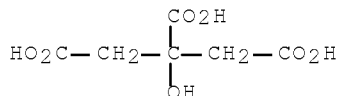
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(radio-opaque paint for medical stents)

IT 77-92-9, Citric acid, biological studies
7727-43-7, Barium sulfate

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(radio-opaque paint for medical stents)

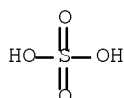
RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 18 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1994:325835 HCAPLUS Full-text
 DOCUMENT NUMBER: 120:325835
 ORIGINAL REFERENCE NO.: 120:57313a,57316a
 TITLE: Manufacture of silica-coated inorganic particles
 INVENTOR(S): Jacobson, Howard Wayne
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
 SOURCE: PCT Int. Appl., 15 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9322386	A1	19931111	WO 1993-US3581	19930422 <--
W: AU, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9342880	A	19931129	AU 1993-42880	19930422 <--
EP 638110	A1	19950215	EP 1993-912271	19930422 <--
EP 638110	B1	19980923		
R: DE, GB				
JP 07506081	T	19950706	JP 1993-519304	19930422 <--
JP 3524550	B2	20040510		
US 5340393	A	19940823	US 1993-137903	19931012 <--
PRIORITY APPLN. INFO.:			US 1992-874878	A 19920428 <--
			WO 1993-US3581	A 19930422 <--

ED Entered STN: 25 Jun 1994

AB Title nonagglomerated water insol. inorg. particles, having a dense (e.g. 0.5-50%) amorphous SiO₂ coating, are prepared by forming aqueous dispersions of metal oxides, carbonates, or sulfates in the presence of 0.05-2% dispersion aids at 60-100° and adding concurrently mineral acids and alkali silicates at pH 7-11. Elec. conductive fine Sb-Sn oxide-coated SiO₂-coated TiO₂ powders were prepared by forming SiO₂-coated TiO₂ particles in the presence of Na pyrophosphate and further depositing with Sb₂O₃ and SnO₂ and were used to form a paint giving smooth films.

IPCI C09C0003-06 [ICM,5]; C09C0001-36 [ICS,5]; C09C0001-40 [ICS,5]; C09C0001-02 [ICS,5]; C09C0001-04 [ICS,5]; C09C0001-24 [ICS,5]; C09C0001-22 [ICS,5,C*]; C09C0001-00 [ICS,5]

IPCR C01G0023-00 [I,C*]; C01G0023-00 [I,A]; C01B0013-14 [I,C*]; C01B0013-14 [I,A]; C01B0033-00 [I,C*]; C01B0033-12 [I,A]; C01F0011-00 [I,C*]; C01F0011-46 [I,A]; C01G0023-04 [I,A]; C09C0001-36 [I,C*]; C09C0001-36 [I,A]; C09C0003-06 [I,C*]; C09C0003-06 [I,A]

CC 42-5 (Coatings, Inks, and Related Products)

Section cross-reference(s): 76

ST elec conductive metal oxide composite; silica coated inorg oxide dispersion aid; charge stabilizer dispersion aid silica deposition; steric stabilizer dispersion aid silica deposition

IT Stabilizing agents

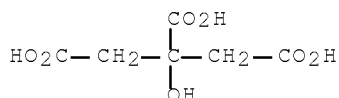
(as dispersion aids, manufacture of silica-coated oxide particles in presence of, for non-agglomeration)

IT Dispersing agents

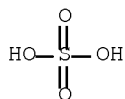
(manufacture of silica-coated oxide particles in presence of, for nonagglomeration)

IT Carbonates, uses

- RL: PREP (Preparation)
(silica-coated particles, nonagglomerated, preparation in presence of dispersion aids, for elec. conductive inorg. powders for coatings)
- IT Soaps
RL: USES (Uses)
(alkali metal, dispersion aids, manufacture of silica-coated oxide particles in presence of, for nonagglomeration)
- IT Coating materials
(elec. conductive, antimony-tin oxide-coated powder-containing, from fine silica-coated titania, manufacture in presence of dispersion aids)
- IT 77-92-9, Citric acid, uses 7320-34-5, Potassium pyrophosphate 7632-05-5, Sodium phosphate 7722-88-5 10124-31-9, Ammonium phosphate 16068-46-5, Potassium phosphate 22690-73-9, Ammonium pyrophosphate
RL: USES (Uses)
(dispersion aids, manufacture of silica-coated oxide particles in presence of, nonagglomeration)
- IT 1332-37-2, Iron oxide, uses 11099-02-8, Nickel oxide 12269-78-2, Pyrophyllite
RL: USES (Uses)
(silica-coated particles, nonagglomerated, preparation in presence of dispersion aids, for elec. conductive inorg. powders for coatings)
- IT 1302-54-1P, Anorthite 1302-88-1P, Cordierite 1304-28-5P, Barium oxide, uses 1305-78-8P, Calcium oxide, uses 1309-48-4P, Magnesia, uses 1314-11-0P, Strontium oxide, uses 1314-13-2P, Zinc oxide, uses 7727-43-7P, Barium sulfate 13463-67-7P, Titania, uses 18282-10-5P, Tin dioxide
RL: PREP (Preparation)
(silica-coated particles, nonagglomerated, preparation of, for elec. conductive inorg. powders for coatings)
- IT 77-92-9, Citric acid, uses
RL: USES (Uses)
(dispersion aids, manufacture of silica-coated oxide particles in presence of, nonagglomeration)
- RN 77-92-9 HCAPLUS
- CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



- IT 7727-43-7P, Barium sulfate
RL: PREP (Preparation)
(silica-coated particles, nonagglomerated, preparation of, for elec. conductive inorg. powders for coatings)
- RN 7727-43-7 HCAPLUS
- CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 13 THERE ARE 13 CAPLUS RECORDS THAT CITE THIS RECORD (13 CITINGS)
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 19 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1993:673615 HCAPLUS Full-text

DOCUMENT NUMBER: 119:273615

ORIGINAL REFERENCE NO.: 119:48941a, 48944a

TITLE: High-hiding-power compositions for correction solids and correction tapes

INVENTOR(S): Uchino, Masahiro; Okabe, Eiichi

PATENT ASSIGNEE(S): Pentel Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05179180	A	19930720	JP 1991-358426	19911227 <--
PRIORITY APPLN. INFO.:			JP 1991-358426	19911227 <--

ED Entered STN: 25 Dec 1993

AB The title compos. contain pigments, binders, and granules for the prevention of aggregation having $n < 1.8$ and average granular diameter 0.2-10 μm . Thus, a correction composition contained Kronos KR 380 65, Acryloid B66 25, methylcyclohexane 120, Microsilica 980W 18, and Homogeneol L18 1.2 part. IPCI C09D0010-00 [ICM,5]

IPCR C09D0010-00 [I,C*]; C09D0010-00 [I,A]

CC 42-12 (Coatings, Inks, and Related Products)

ST titanium oxide correction compn; microsilica acrylic polymer correction compn

IT Carnauba wax

Candelilla wax

Montan wax

Paraffin waxes and Hydrocarbon waxes, uses

Rubber, butadiene-styrene, uses

RL: USES (Uses)

(binders, for correction materials containing titanium oxide and aggregation inhibiting granules)

IT Inorganic compounds

Kaolin, uses

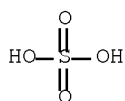
RL: USES (Uses)

(granules, aggregation inhibitors, in correction materials containing titanium oxide and binders)

IT Agglomeration preventers

(polymer granules and inorg. granules, for correction materials containing

- titanium oxide and binders)
- IT Binding materials
(polymers and waxes, for correction materials containing titanium oxide and aggregation inhibiting granules)
- IT Rubber, synthetic
RL: USES (Uses)
(isoprene-styrene, block, triblock, binders, for correction materials containing titanium oxide and aggregation inhibiting granules)
- IT Correction materials
(solids, containing titanium oxide and binders and aggregation inhibiting granules)
- IT 9011-15-8, Acryloid B67 25608-33-7, Acryloid B66 58229-85-9, Paraloid B 44
RL: USES (Uses)
(binders, for correction materials containing titanium oxide and aggregation inhibiting granules)
- IT 471-34-1, Calcium carbonate, uses 1318-74-7, Kaolinite, uses 7631-86-9, Silica, uses 7727-43-7, Barium sulfate 138185-96-3, Techpolymer MBX4 150605-31-5, Techpolymer SBX5
RL: USES (Uses)
(granules, aggregation inhibitors, in correction materials containing titanium oxide and binders)
- IT 13463-67-7, Titanium oxide, uses
RL: USES (Uses)
(pigments, for correction materials containing binders and aggregation inhibiting granules)
- IT 9003-55-8
RL: USES (Uses)
(rubber, binders, for correction materials containing titanium oxide and aggregation inhibiting granules)
- IT 7727-43-7, Barium sulfate
RL: USES (Uses)
(granules, aggregation inhibitors, in correction materials containing titanium oxide and binders)
- RN 7727-43-7 HCAPLUS
- CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



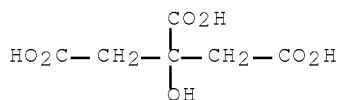
● Ba

L123 ANSWER 20 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1993:190476 HCAPLUS Full-text
 DOCUMENT NUMBER: 118:190476
 ORIGINAL REFERENCE NO.: 118:32695a,32698a
 TITLE: Dispersion of water-insoluble salts and beverages containing them
 INVENTOR(S): Miyagawa, Akira; Watanabe, Hajime; Ninomiya, Yasuyo
 PATENT ASSIGNEE(S): Sunstar Kk, Japan

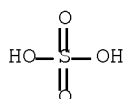
10/596,007

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05015319	A	19930126	JP 1991-272547	19911021 <--
PRIORITY APPLN. INFO.:			JP 1990-410829	A1 19901214 <--
ED Entered STN: 14 May 1993				
AB Beverages contain water-insol. salts (e.g. Ca, Mg, Ba, Fe salts) <u>dispersed</u> with xanthan gum (and other gums). H2O 985, Mg(OH)2 10, and xanthan gum 5 parts were <u>mixed</u> at 80° and stored at 25° for 40 days to show only minor precipitation. The beverages are also used as x-ray contrast media and cathartics. IPCI A23L0001-054 [ICM,5]; A23L0001-05 [ICM,5,C*]; A23L0002-00 [ICS,5]; A61K0031-725 [ICS,5]; A61K0033-06 [ICS,5]; A61K0049-04 [ICS,5]				
IPCR A23L0001-05 [I,C*]; A23L0001-05 [I,A]; A23L0001-054 [I,A]; A23L0002-00 [I,C*]; A23L0002-00 [I,A]; A23L0002-52 [I,C*]; A23L0002-52 [I,A]; A61K0031-715 [I,C*]; A61K0031-715 [I,A]; A61K0033-06 [I,C*]; A61K0033-06 [I,A]; A61K0049-04 [I,C*]; A61K0049-04 [I,A]; A61P0001-00 [I,C*]; A61P0001-10 [I,A]				
CC 17-13 (Food and Feed Chemistry) Section cross-reference(s): 8, 63				
ST beverage metal <u>dispersant</u> xanthan gum; x ray contrast medium <u>dispersant</u> ; cathartic metal xanthan gum <u>dispersant</u>				
IT Beverages (containing metals and xanthan gum as <u>dispersant</u> , stable)				
IT Cathartics (metals, beverages containing xanthan gum as <u>dispersant</u> and, stable)				
IT <u>Dispersing agents</u> (xanthan gum, for metals, for beverages)				
IT Radiography (contrast agents, xanthan gum as <u>dispersant</u> for)				
IT Pharmaceutical dosage forms (solns., cathartic metals, xanthan gum as <u>dispersant</u> in, stable)				
IT 50-81-7, Ascorbic acid, biological studies 68-04-2, Sodium citrate <u>77-92-9</u> , Citric acid, biological studies 87-69-4, Tartaric acid, biological studies 134-03-2, Sodium ascorbate 7722-88-5 9000-07-1, Carrageenan 9000-30-0, Guar gum 9000-40-2, Locust-bean gum 9000-69-5, Pectin 9004-34-6, Cellulose, biological studies 50813-16-6, Sodium metaphosphate RL: BIOL (Biological study) (beverages containing metals and xanthan gum and, stable)				
IT 11138-66-2, Xanthan gum RL: BIOL (Biological study) (beverages containing metals and, as <u>dispersant</u>)				
IT 471-34-1, Calcium carbonate, biological studies 1309-42-8, Magnesium hydroxide <u>7727-43-7</u> , Barium sulfate RL: BIOL (Biological study) (beverages containing xanthan gum as <u>dispersant</u> and, stable)				
IT <u>77-92-9</u> , Citric acid, biological studies RL: BIOL (Biological study) (beverages containing metals and xanthan gum and, stable)				
RN 77-92-9 HCAPLUS				
CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)				



IT 7727-43-7, Barium sulfate
 RL: BIOL (Biological study)
 (beverages containing xanthan gum as dispersant and, stable)
 RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

L123 ANSWER 21 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1992:43056 HCAPLUS Full-text
 DOCUMENT NUMBER: 116:43056
 ORIGINAL REFERENCE NO.: 116:7407a, 7410a
 TITLE: Binders for nonwovens
 INVENTOR(S): Nass, David R.; Walker, James L.; Mudge, Paul R.
 PATENT ASSIGNEE(S): National Starch and Chemical Investment Holding Corp.,
 USA
 SOURCE: Eur. Pat. Appl., 12 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
EP 451554	A1	19911016	EP 1991-104261	19910319 <--
EP 451554	B1	19941012		
R: DE, FR, GB, NL, SE				
US 5565062	A	19961015	US 1990-507267	19900410 <--
CA 2038868	A1	19911011	CA 1991-2038868	19910322 <--
CA 2038868	C	19960723		

PRIORITY APPLN. INFO.: US 1990-507267 A 19900410 <--
 ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 ED Entered STN: 08 Feb 1992

AB A beater saturation process for forming a nonwoven wet laid composite comprises providing an aqueous dispersion which comprises water- dispersible but water-insol. fiber 10-95, finely divided, substantially water insol., nonfibrous inorg. filler 0-80, and anionically charged emulsion polymer comprising 70-90% of a vinyl ester of an alkanolic acid, 10-30% ethylene, or 0-70% C2-8 alkyl acrylate, and 0-4% anionic functional monomer 5-50%, colloiddally destabilizing the resulting

mixture with a cationic flocculant to form a fibrous agglomerate in the aqueous suspension, distributing and draining the aqueous suspension on a porous substrate to form a wet web, and drying. A formulation was prepared containing cellulose pulp 4.56, talc 50.0, polyester fibers 2.0, Kymore 557 H 0.324, alum 3.9, and vinyl acetate-Bu acrylate-ethylene-N-methylolacrylamide-acrylic acid-triethylisocyanurate copolymer (44:44:12:3:0.5:0.1) 9.75 parts, which had a precipitation time 0.5 min, drain time 7 s, and 94% retention. The resultant wet laid component had ambient peak load 15.9 lb and color (L) 75.5 (100 white). IPCI D04H0001-64 [ICM,5] IPCR D04H0001-64 [I,C*]; D04H0001-64 [I,A]; D21H0017-00 [I,C*]; D21H0017-34 [I,A]; D21H0017-42 [I,A]

CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 38, 43

ST binder acrylic nonwoven cellulose fiber; filler inorg nonwoven acrylic binder; polyester fiber nonwoven acrylic binder

IT Binding materials
(acrylic polymers, for nonwoven wet laid composites)

IT Kieselguhr
Limestone, uses
RL: USES (Uses)
(fillers, for nonwoven wet laid webs, acrylic binders for)

IT Pulp, cellulose
Glass fibers, uses
RL: USES (Uses)
(nonwoven wet laid composites from, acrylic binders for)

IT Polypropene fibers, uses
RL: USES (Uses)
(nonwoven wet-laid composites from, acrylic binders for)

IT Polyolefin fibers
RL: USES (Uses)
(ethylene, nonwoven wet laid composites from, acrylic binders for)

IT Polyester fibers, uses
RL: USES (Uses)
(ethylene glycol-naphthalenedicarboxylic acid, nonwoven wet laid composites from, acrylic binders for)

IT 28679-45-0 34011-80-8 129458-27-1 129458-30-6
RL: USES (Uses)
(binder, for nonwoven wet laid composite)

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene
RL: USES (Uses)
(fiber, nonwoven wet laid composites from, acrylic binders for)

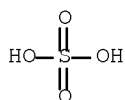
IT 471-34-1, Calcium carbonate, uses 546-93-0, Magnesium carbonate
1309-42-8, Magnesium hydroxide 1314-13-2, Zinc oxide, uses 1335-30-4,
Aluminum silicate 1343-88-0, Magnesium silicate 7631-86-9, Silica,
uses 7727-43-7 7778-18-9, Calcium sulfate 13463-67-7,
Titanium dioxide, uses 14807-96-6, Talc, uses 21645-51-2, Aluminum
hydroxide (Al(OH)3), uses
RL: USES (Uses)
(fillers, for nonwoven wet laid webs, acrylic binders for)

IT 9004-34-6
RL: USES (Uses)
(pulp, nonwoven wet laid composites from, acrylic binders for)

IT 7727-43-7
RL: USES (Uses)
(fillers, for nonwoven wet laid webs, acrylic binders for)

RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L123 ANSWER 22 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1991:165688 HCAPLUS Full-text

DOCUMENT NUMBER: 114:165688

ORIGINAL REFERENCE NO.: 114:28029a,28032a

TITLE: Redispersible agglomerates of inorganic additives, especially fireproofing agents

INVENTOR(S): Schlumpf, Hans Peter; Pfister, Hans Joerg; Haldemann, Peter

PATENT ASSIGNEE(S): Pluess-Stauffer A.-G., Switz.

SOURCE: Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 397165	A1	19901114	EP 1990-108805	19900510 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
CA 2016447	A1	19901111	CA 1990-2016447	19900510 <--
DE 4015054	A1	19901115	DE 1990-4015054	19900510 <--
JP 03109447	A	19910509	JP 1990-121071	19900510 <--
PRIORITY APPLN. INFO.:			DE 1989-3915441	A 19890511 <--

ED Entered STN: 03 May 1991

AB The title agglomerates contain inorg. additives 92.1-96.1, hydrophobic coatings 0.1-3, and hydrophobic binders 3.8-4.9%. Mixing 300 g CaCO₃ (average particle size 3 µm, sp. surface 2.2 m²/g) coated with 1% 1:1 mixture of Mg stearate and stearamide with 12.5 g 1-butene-C₂H₄-C₃H₆ copolymer (melt viscosity 8 Pa-s at 190°, softening point 85°) in the presence of H₂O and drying at 105° gave a composition which dispersed (20%) in HDPE very readily at 40 and 30 rpm and readily at 20 rpm. IPCI C08K0009-08 [ICM,5]; C08K0009-00 [ICM,5,C*]; C08J0003-22 [ICS,5]; C08J0003-20 [ICS,5,C*]

IPCR C08K0009-08 [I,A]; C08J0003-20 [I,C*]; C08J0003-22 [I,A]; C08K0009-00 [I,C*]; C08K0009-04 [I,A]; C09C0003-10 [I,C*]; C09C0003-10 [I,A]

CC 37-6 (Plastics Manufacture and Processing)

ST fireproofing agent polymer dispersible; mineral additive polymer dispersible; calcium carbonate agglomerate dispersible; binder mineral agglomerate dispersible; polyolefin binder agglomerate dispersible; stearamide coating additive dispersible; magnesium stearate coating additive

IT Polyalkenamers

Waxes and Waxy substances

RL: TEM (Technical or engineered material use); USES (Uses)

(binders, for dispersible agglomerates of
inorg. particles for use in plastics)

IT Feldspar-group minerals

Kaolin, uses and miscellaneous

Mica-group minerals, uses and miscellaneous

Nepheline syenite

RL: TEM (Technical or engineered material use); USES (Uses)

(dispersible agglomerates of, for use in plastics)

IT Fireproofing agents

(halogen-free, for polymers, dispersible agglomerates
of inorg. particles as)

IT Binding materials

(hydrocarbon polymers and waxes, for dispersible
agglomerates of inorg. materials for use in plastics)

IT Paraffin waxes and Hydrocarbon waxes, uses and miscellaneous

RL: TEM (Technical or engineered material use); USES (Uses)

(microcryst., binders, for dispersible
agglomerates of inorg. particles for use in plastics)

IT 25895-47-0, 1-Butene-ethylene-propylene copolymer 28702-45-6,
Poly(1-octene-1,8-diyl)

RL: TEM (Technical or engineered material use); USES (Uses)

(binders, for dispersible agglomerates of
inorg. particles for use in plastics)

IT 471-34-1, Calcium carbonate, uses and miscellaneous 546-93-0, Magnesium
carbonate 1309-42-8, Magnesium hydroxide 7631-86-9, Silica, uses and
miscellaneous 7727-43-7, Barium sulfate

7778-18-9, Calcium sulfate 13983-17-0, Wollastonite 14807-96-6, Talc,
uses and miscellaneous 16389-88-1, Dolomite, uses and miscellaneous
21645-51-2, Aluminum hydroxide, uses and miscellaneous

RL: TEM (Technical or engineered material use); USES (Uses)

(dispersible agglomerates of, for use in plastics)

IT 9002-88-4

RL: TEM (Technical or engineered material use); USES (Uses)

(high-d., mineral particles as additives for, dispersible
agglomerates of)

IT 9003-07-0

RL: TEM (Technical or engineered material use); USES (Uses)

(inorg. particles as additives for, dispersible
agglomerates of)

IT 124-26-5, Stearamide 557-04-0, Magnesium stearate 557-05-1, Zinc
stearate 919-30-2, 3-(Triethoxysilyl)propylamine 7664-38-2D,
Phosphoric acid, monoesters

RL: TEM (Technical or engineered material use); USES (Uses)

(inorg. particles coated with, for dispersible
agglomerates for use in plastics)

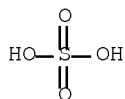
IT 7727-43-7, Barium sulfate

RL: TEM (Technical or engineered material use); USES (Uses)

(dispersible agglomerates of, for use in plastics)

RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD
(5 CITINGS)

L123 ANSWER 23 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1986:177804 HCAPLUS Full-text
 DOCUMENT NUMBER: 104:177804
 ORIGINAL REFERENCE NO.: 104:28007a,28010a
 TITLE: Heat-sensitive recording materials
 INVENTOR(S): Ishida, Katsuhiko; Nojima, Masaharu; Okamoto, Tosaku
 PATENT ASSIGNEE(S): Kanzaki Paper Mfg. Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 35 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 153616	A2	19850904	EP 1985-101151	19850204 <--
EP 153616	A3	19880601		
EP 153616	B1	19910403		
R: DE, FR, GB				
JP 60165288	A	19850828	JP 1984-20967	19840207 <--
JP 03041358	B	19910621		
JP 61053083	A	19860315	JP 1984-177244	19840824 <--
JP 04003758	B	19920124		
US 4652512	A	19870324	US 1986-823561	19860129 <--
PRIORITY APPLN. INFO.:			JP 1984-20967	A 19840207 <--
			JP 1984-177244	A 19840824 <--
			US 1985-695025	A2 19850125 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

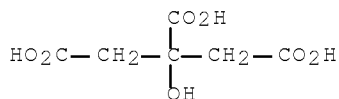
OTHER SOURCE(S): MARPAT 104:177804

ED Entered STN: 17 May 1986

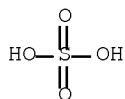
AB A heat-sensitive recording material with excellent storage stability contains a color-forming layer containing a diazonium salt, a coupling agent, and ≥ 1 heat-fusible compound selected from basic amidine and diamidine compds. having the general formula $R(CNR_1)NR_2R_3$ [$R_1, R_2, R_3 = H, \text{ cycloalkyl, aryl (optionally substituted with alkyl, alkoxy, aryloxy, NO}_2, \text{ halogen), aralkyl (optionally substituted with alkyl, alkoxy, aryloxy, NO}_2, \text{ halogen), alkyl (optionally substituted with alkoxy, aryloxy, halogen)}$; $R = R_4, R_7NR_6(CNR_5)Z$ where $R_4, R_5, R_6, R_7 = H, \text{ cycloalkyl, aryl (optionally substituted with alkyl, alkoxy, aryloxy, NO}_2, \text{ halogen), aralkyl (optionally substituted with alkyl, alkoxy, aryloxy, NO}_2, \text{ halogen), alkyl (optionally substituted with alkoxy, aryloxy, halogen)}$; $Z = \text{alkylene, phenylene, naphthylene, p-C}_6\text{H}_4\text{Z}_1\text{-pC}_6\text{H}_4$ where $Z_1 = \text{alkylene, SO}_2, S, O, NH, \text{ other single bond}$]. Thus, a wood-free paper support was coated with a composition comprised of 2-hydroxy-3-naphthoic acid o-ethoxyanilide 25, N,N'-diphenylbenzamidine 25, a 20% aqueous dispersion of stearamide 40, and 10% aqueous poly(vinyl alc.) 50 parts, dried to give a 4-g/m² layer, overcoated with a

10/596,007

composition comprised of p-N,N-diethylaminobenzenediazonium tetraphenylborate 2, CaCO₃ 50, 10% aqueous poly(vinyl alc.) 50, and H₂O 100 parts at 4 g/m² (dry weight), and dried to give a heat-sensitive recording material which was contacted with a heating plate at 110° for 2 s and exposed to UV to obtain a fixed image having a d. of 1.13 and a background d. of 0.07 vs. a background d. of 0.14 after standing at 30° and 70% for 7 days. IPCI B41M0005-26 [ICM,4]; G03C0001-60 [ICS,4]; G03C0001-52 [ICS,4,C*]
 IPCR G03C0001-52 [I,C*]; G03C0001-52 [I,A]; G03C0001-61 [I,A]
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT Recording materials
 (thermal, heat-sensitive color-forming compos. containing diazonium salt and coupling agent and amidine derivative for, with improved storage stability)
 IT 347-46-6 68015-88-3 71255-93-1 77569-52-9
 RL: USES (Uses)
 (heat-sensitive color-forming compos. containing coupling agent and amidine derivative and, for thermal recording materials)
 IT 92-74-0 92-77-3 10089-93-7
 RL: USES (Uses)
 (heat-sensitive color-forming compos. containing diazonium salt and amidine derivative and, for thermal recording materials)
 IT 62-56-6, uses and miscellaneous 77-92-9, uses and miscellaneous 87-69-4, uses and miscellaneous 102-08-9 124-26-5 471-34-1, uses and miscellaneous 620-40-6 7631-86-9, uses and miscellaneous 7727-43-7 9002-89-5 9003-22-9 13463-67-7
 RL: USES (Uses)
 (heat-sensitive color-forming compos. containing diazonium salt and coupling agent and amidine derivative and, for thermal recording materials)
 IT 2556-46-9 2769-47-3 13471-34-6 25110-48-9 36480-52-1 47776-72-7 71709-30-3 91790-87-3 101649-74-5 101649-75-6 101649-76-7 101649-77-8 101649-78-9 101649-79-0 101649-80-3 101649-81-4
 RL: USES (Uses)
 (heat-sensitive color-forming compos. containing diazonium salt and coupling agent and, for thermal recording materials)
 IT 77-92-9, uses and miscellaneous 7727-43-7
 RL: USES (Uses)
 (heat-sensitive color-forming compos. containing diazonium salt and coupling agent and amidine derivative and, for thermal recording materials)
 RN 77-92-9 HCAPLUS
 CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



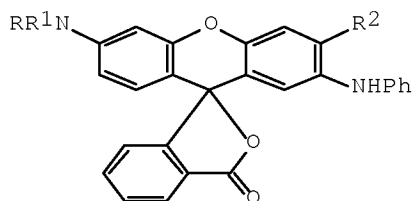
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OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)

L123 ANSWER 24 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1983:622486 HCAPLUS Full-text
 DOCUMENT NUMBER: 99:222486
 ORIGINAL REFERENCE NO.: 99:34069a,34072a
 TITLE: Heat-sensitive recording materials
 INVENTOR(S): Taniguchi, Keishi; Iwata, Susumu; Sakamoto, Hiroshi
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Ger. Offen., 28 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3245660	A1	19830623	DE 1982-3245660	19821209 <--
DE 3245660	C2	19840223		
JP 58098286	A	19830611	JP 1981-197923	19811209 <--
US 4486763	A	19841204	US 1982-446086	19821201 <--
FR 2517599	A1	19830610	FR 1982-20655	19821209 <--
FR 2517599	B1	19840713		
GB 2112161	A	19830713	GB 1982-35198	19821209 <--
GB 2112161	B	19850724		

PRIORITY APPLN. INFO.: JP 1981-197923 A 19811209 <--
 ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 OTHER SOURCE(S): MARPAT 99:222486
 ED Entered STN: 12 May 1984
 GI



I

AB Heat-sensitive recording materials giving high d. images in a high-speed recording process, showing no discoloration upon rubbing or application of pressure, having a good storage stability, and showing essentially no dust buildup

on the thermal head during recording contain a colorless or slightly colored fluoran (I; R = C5-8 alkyl; R1 = C1-8 alkyl; R2 = C1-2 alkyl), an acid material as developer, and a benzamide derivative. Thus, a mixture containing 1 part of a ball-milled dispersion containing 3-methyl-n-amylamino-6-methyl-7-anilino-fluoran 20, 10% aqueous hydroxyethylcellulose 20, and water 60 parts, 4 parts of a ball-milled dispersion containing 2,2'-bis(4-hydroxyphenyl)propane 20, 10% aqueous hydroxyethylcellulose 20, and water 20 parts, 2 parts of a ball-milled dispersion containing N-dodecylbenzamide 20 and 5% aqueous methylcellulose 60 parts, and 2 parts 20% aqueous poly(vinyl alc.) was coated on a paper sheet (60 g/m²) at 6.0 g/m² dry and then recorded on in a RIFAX-3300 facsimile apparatus to give an image d. of 1.20. When recorded on for 24 h, no dust was observed on the thermal head and clear images were still obtainable. IPCI B41M0005-18 [ICM]

IPCR B41M0005-337 [I,A]; B41M0005-30 [I,C*]; B41M0005-30 [N,A]; B41M0005-327 [I,A]; C09B0011-00 [I,C*]; C09B0011-00 [I,A]; C09B0011-28 [I,A]

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 27

IT Recording materials

(thermal, heat-sensitive compos. containing benzamide derivative and fluoran derivative color former for)

IT 50-85-1 57-11-4, uses and miscellaneous 65-85-0, uses and miscellaneous 69-72-7, uses and miscellaneous 77-40-7 77-92-9, uses and miscellaneous 79-96-9 80-05-7, uses and miscellaneous 83-30-7 86-48-6 87-66-1 87-69-4, uses and miscellaneous 89-83-8 90-15-3 98-54-4 99-06-9, uses and miscellaneous 99-76-3 99-93-4 108-46-3, uses and miscellaneous 108-68-9 108-73-6 110-15-6, uses and miscellaneous 110-16-7, uses and miscellaneous 119-47-1 120-80-9, uses and miscellaneous 123-31-9, uses and miscellaneous 135-19-3, uses and miscellaneous 144-62-7, uses and miscellaneous 149-91-7, uses and miscellaneous 471-34-1, uses and miscellaneous 637-12-7 1139-46-4 1309-48-4, uses and miscellaneous 1344-28-1, uses and miscellaneous 1806-29-7 7631-86-9, uses and miscellaneous 7727-43-7 7790-93-4 9002-89-5 9003-22-9 9003-53-6 9003-63-8 9004-62-0 9004-67-5 9011-05-6 14807-96-6, uses and miscellaneous

RL: USES (Uses)

(thermal recording materials with heat-sensitive layer containing benzamide derivative and fluoran derivative and)

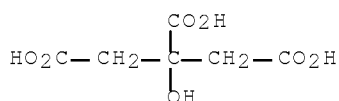
IT 77-92-9, uses and miscellaneous 7727-43-7

RL: USES (Uses)

(thermal recording materials with heat-sensitive layer containing benzamide derivative and fluoran derivative and)

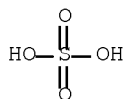
RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L123 ANSWER 25 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
ACCESSION NUMBER: 1982:208440 HCAPLUS Full-text
DOCUMENT NUMBER: 96:208440
ORIGINAL REFERENCE NO.: 96:34250h,34251a
TITLE: Heat-sensitive recording material
INVENTOR(S): Kubo, Keishi; Kawamura, Eiichi
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
SOURCE: Ger. Offen., 41 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3119053	A1	19820211	DE 1981-3119053	19810513 <--
DE 3119053	C2	19830721		
JP 56169087	A	19811225	JP 1980-62312	19800513 <--
JP 58034313	B	19830726		
JP 57008193	A	19820116	JP 1980-82167	19800619 <--
JP 58034316	B	19830726		
PRIORITY APPLN. INFO.:			JP 1980-62312	A 19800513 <--
			JP 1980-82167	A 19800619 <--

ED Entered STN: 12 May 1984

AB Heat-sensitive recording materials are described which produce high d. images with a sharp contrast with the application of only a relatively low amount of energy. These materials consist of a support coated with a heat-sensitive layer containing a colorless or only slightly colored leuco dye, an acid, and an amide. The addition of a dialkyl 4,5-epoxycyclohexane-1,2-dicarboxylate to the heat-sensitive layer improves the resistance of the layer to pressure or rubbing. Thus, a high quality paper sheet was drawbar coated with a heat-sensitive dispersion prepared by mixing a dispersion containing 3-pyrrolidino-6-methyl-7-anilinofluoran 5.7, 10% aqueous poly(vinyl alc.) 25.0, and water 19.8 parts and a dispersion containing Bisphenol A 21.0, hydroxyethyl cellulose 2.7, N-cyclohexylstearamide 8.0, and water 18.3 parts at 5.6 g/m², dried, and imaged in a thermoprinter with a thermal printing head operating at 110° (1.03 mJ at 14 V) to give a clear image with a d. of 0.8. IPCI B41M0005-26 [ICM]

IPCR B41M0005-30 [I,C*]; B41M0005-337 [I,A]

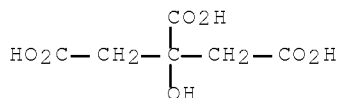
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Thermography

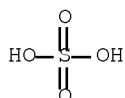
(heat-sensitive compos. for, containing amide for improved image d. and contrast)

- IT Acrylic polymers, uses and miscellaneous
 Alkanes, uses and miscellaneous
 Gelatins, uses and miscellaneous
 Linseed oil
 Paraffin waxes and Hydrocarbon waxes, uses and miscellaneous
 Phenols, uses and miscellaneous
 Tung oil
 RL: USES (Uses)
 (heat-sensitive recording compos. containing amide and, for improved image d. and contrast)
- IT Vinyl compounds, polymers
 RL: USES (Uses)
 (polymers, heat-sensitive recording compos. containing amide and, for improved image d. and contrast)
- IT Alkanes, uses and miscellaneous
 RL: USES (Uses)
 (chloro, heat-sensitive recording compos. containing amide and, for improved image d. and contrast)
- IT Recording
 (thermal, heat-sensitive compos. containing amide for)
- IT 50-85-1 57-11-4, uses and miscellaneous 65-85-0, uses and miscellaneous 69-72-7, uses and miscellaneous ~~77-92-9~~, uses and miscellaneous 86-48-6 87-69-4, uses and miscellaneous 99-06-9, uses and miscellaneous 110-15-6, uses and miscellaneous 110-16-7, uses and miscellaneous 144-62-7, uses and miscellaneous 149-91-7, uses and miscellaneous 10043-35-3
 RL: USES (Uses)
 (heat-sensitive recording composition containing amide and, for improved image d. and contrast)
- IT 77-40-7 79-96-9 80-05-7, uses and miscellaneous 83-30-7 87-66-1 89-83-8 90-15-3 98-54-4 99-76-3 99-93-4 108-46-3, uses and miscellaneous 108-68-9 108-73-6 119-47-1 120-80-9, uses and miscellaneous 123-31-9, uses and miscellaneous 135-19-3, uses and miscellaneous 471-34-1, uses and miscellaneous 1139-46-4 1309-48-4, uses and miscellaneous 1344-28-1, uses and miscellaneous 1806-29-7 7631-86-9, uses and miscellaneous ~~7727-43-7~~ 9002-89-5 9003-01-4 9003-05-8 9003-22-9 9003-39-8 9003-53-6 9003-63-8 9004-32-4 9004-62-0 9004-67-5 9005-25-8, uses and miscellaneous 14807-96-6, uses and miscellaneous 20217-26-9, uses and miscellaneous 55772-72-0
 RL: USES (Uses)
 (heat-sensitive recording compos. containing amide and, for improved image d. and contrast)
- IT 637-12-7 9005-25-8D, oxidized 68134-61-2 81855-52-9 81855-53-0
 RL: USES (Uses)
 (heat-sensitive recording compos. containing amide and, with improved image d. and contrast)
- IT 1124-53-4 1759-68-8 10251-00-0 81855-49-4 81855-50-7 81855-51-8
 RL: USES (Uses)
 (heat-sensitive recording compos. containing, for improved image d. and contrast)
- IT 1126-56-3 1759-68-8 17427-96-2 19083-52-4 59507-54-9 81855-48-3 81855-54-1 81855-55-2 81855-56-3 81855-57-4 81855-58-5 81855-59-6 81855-60-9 81855-61-0
 RL: USES (Uses)
 (heat-sensitive recording compos. containing, with improved image d. and contrast)
- IT 9002-88-4
 RL: USES (Uses)
 (wax, heat-sensitive recording composition containing amide and, for

improved image d. and contrast)
 IT 77-92-9, uses and miscellaneous
 RL: USES (Uses)
 (heat-sensitive recording composition containing amide and, for
 improved image d. and contrast)
 RN 77-92-9 HCAPLUS
 CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



IT 7727-43-7
 RL: USES (Uses)
 (heat-sensitive recording compos. containing amide and, for
 improved image d. and contrast)
 RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



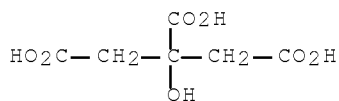
● Ba

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD
 (3 CITINGS)
 REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

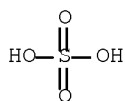
L123 ANSWER 26 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1974:96666 HCAPLUS Full-text
 DOCUMENT NUMBER: 80:96666
 ORIGINAL REFERENCE NO.: 80:15557a,15560a
 TITLE: Increase in the electrical conductivity of carbon
 black-filled polyethylene
 AUTHOR(S): Vasilenok, Yu. I.; Deyanova, A. S.; Konoplev, B. A.;
 Il'chenko, P. A.; Martynov, M. A.
 CORPORATE SOURCE: Nauchno-Proizvod. Ob'edin. Plastpolimer, Leningrad,
 USSR
 SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (
1973), 15(12), 2687-91
 CODEN: VYSAAF; ISSN: 0507-5475
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 ED Entered STN: 12 May 1984
 AB The elec. conductivity (γ) of high- and low-d. polyethylene (I) [9002-88-4],
 filled with 15-25% carbon black, increased by an order of 0.5-3.0 on
 introducing small amts. of finely dispersed additives of inorg. salts or

oxides, organic acids, polyhydric alc., or surfactants. Increased γ on introduction of such additives to the filled-I was attributed to expansion of the spherulite interfaces, as a result of decreased spherulite size, and a more even distribution of the elec. conducting filler (carbon black) in the amorphous portion of the polymer.

CC 36-5 (Plastics Manufacture and Processing)
 ST elec cond polyethylene compon; carbon black filler compon
 ; polymer morphol filler compon
 IT Polymer morphology
 (of polyethylene compos., elec. conductivity in relation to)
 IT Spherulites
 (size of, infilled polyethylene compos., elec. conductivity in
 relation to)
 IT 50-70-4 59-67-6, properties 77-92-9, properties 97-05-2
 110-16-7, properties 111-20-6, properties 666-84-2 1305-78-8,
 properties 3724-65-0 7446-70-0, properties 7447-41-8, properties
7727-43-7 10034-81-8 11098-05-8 20548-54-3 52349-07-2
 RL: USES (Uses)
 (elec. conductivity of polyethylene containing carbon black and)
 IT 77-92-9, properties 7727-43-7
 RL: USES (Uses)
 (elec. conductivity of polyethylene containing carbon black and)
 RN 77-92-9 HCAPLUS
 CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

L123 ANSWER 27 OF 40 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 1957:58990 HCAPLUS
 DOCUMENT NUMBER: 51:58990
 ORIGINAL REFERENCE NO.: 51:10906b-d
 TITLE: Baryta-coated paper with a smooth surface
 INVENTOR(S): Hanley, Thomas G.
 PATENT ASSIGNEE(S): Eastman Kodak Co.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2780560		19570205	US 1954-420209	19540331 <--

ED Entered STN: 22 Apr 2001

AB To obtain a smooth surface, the paper is treated with a photographically inert buffer (I) at pH 7-8 either by incorporation of I or by application to the surface. For example, I having pH 7.5 was prepared by dissolving 96 g. citric acid (II) and 2120 g. Na₃PO₄ in 20 gal. water. It was then applied to the surface of a high α -cellulose paper by a dip-coating roll. On drying, the paper surface contained 0.8 g. Na₃PO₄ and 0.4 g. II/sq. m. of surface. A composition comprising 1 part gelatin dissolved in 5 parts water and 10 parts BaSO₄ in the form of a 60% aqueous suspension was diluted to 35% solids. To the solution were added 0.67 part iso-AmOH as antifoaming agent and 0.35 part aqueous HCHO. The resulting mixture was dispersed in a colloid mill and applied to a buffered paper surface by a dip-coating roll. The coating set immediately and dried to give a smooth surface. IPCR D21H0019-00 [I,C*]; D21H0019-46 [I,A]; G03C0001-775 [I,C*]; G03C0001-79 [I,A]

NCL 427/301.000; 106/151.200; 106/156.310

CC 23 (Cellulose, Lignin, Paper, and Other Wood Products)

IT Paper
(coating of buffered, with BaSO₄)

IT Buffer systems
(of citric acid and Na₃PO₄, paper treated with, for BaSO₄ coating)

IT Coating(s)
(of paper (buffered) with BaSO₄)

IT Gelatin
(paper (buffered) coated with BaSO₄ containing)

IT 77-92-9, Citric acid
(buffer system containing, BaSO₄ indicator-paper treated with)

IT 50-00-0, Formaldehyde
(in paper (buffered) coating with BaSO₄)

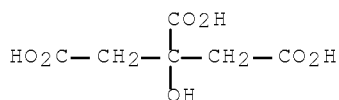
IT 7601-54-9, Sodium phosphate, Na₃PO₄
(in paper treatment for BaSO₄ coating)

IT 7727-43-7, Barium sulfate
(paper (buffered) coated with)

IT 77-92-9, Citric acid
(buffer system containing, BaSO₄ indicator-paper treated with)

RN 77-92-9 HCAPLUS

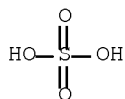
CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



IT 7727-43-7, Barium sulfate
(paper (buffered) coated with)

RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

=> d iall abeq tech abex fraghitstr 28-40
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, WPIX' - CONTINUE? (Y)/N:y

L123 ANSWER 28 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
ACCESSION NUMBER: 2007-200224 [200720] WPIX
CROSS REFERENCE: 2004-460499; 2005-796920; 2006-019851; 2006-028648;
2006-056459; 2006-170769; 2006-231012; 2007-199347;
2008-D07624; 2010-D51623
TITLE: Adhesive composition used in articles, e.g.
nappy, comprises random propylene polymer component
having specific heat of fusion and tacticity index,
non-functionalized plasticizer and functionalized polymer
containing higher olefins
DERWENT CLASS: A18; A97; B07; D22; F04; F07; F09; G02; G03; P73
INVENTOR: LI J; LI J F; MATHEW T; MATHEW T A; SCHAUDER J; TSE M;
TSE M F; LI F; SCHAUDER J H
PATENT ASSIGNEE: (ESSO-C) EXXONMOBIL CHEM PATENTS INC; (LIFF-I) LI F;
(MATH-I) MATHEW T A; (SCHA-I) SCHAUDER J H; (TSEM-I) TSE
M F
COUNTRY COUNT: 114

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2007002177	A1	20070104	(200720)*	EN	161[0]	
US 20070021566	A1	20070125	(200720)	EN	54[0]	
EP 1896542	A1	20080312	(200820)	EN		
CN 101248135	A	20080820	(200861)	ZH		
JP 2008546890	T	20081225	(200903)	JA	121	
US 7645829	B2	20100112	(201005)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2007002177	A1	WO 2006-US24116	20060621
US 20070021566	A1 CIP of	<u>US 2004-825348</u>	<u>20040415</u>
US 20070021566	A1 Provisional	<u>US 2004-622964P</u>	<u>20041028</u>
US 20070021566	A1 Provisional	US 2005-694107P	20050624
US 20070021566	A1 CIP of	US 2005-220114	20050906
CN 101248135	A	CN 2006-80030816	20060621
EP 1896542	A1	EP 2006-773673	20060621
US 20070021566	A1	US 2006-472063	20060621

10/596,007

EP 1896542 A1 PCT Application	WO 2006-US24116 20060621
CN 101248135 A PCT Application	WO 2006-US24116 20060621
JP 2008546890 T PCT Application	WO 2006-US24116 20060621
JP 2008546890 T	JP 2008-518349 20060621
US 7645829 B2 CIP of	<u>US 2004-825348 20040415</u>
US 7645829 B2 Provisional	<u>US 2004-622964P 20041028</u>
US 7645829 B2 Provisional	US 2005-694107P 20050624
US 7645829 B2 CIP of	US 2005-220114 20050906
US 7645829 B2	US 2006-472063 20060621

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1896542 A1	Based on	WO 2007002177 A
CN 101248135 A	Based on	WO 2007002177 A
JP 2008546890 T	Based on	WO 2007002177 A

PRIORITY APPLN. INFO: US 2005-694107P 20050624
US 2004-825348 20040415
US 2004-622964P 20041028
 US 2005-220114 20050906
 US 2006-472063 20060621

INT. PATENT CLASSIF.:

IPC ORIGINAL: B32B0027-32 [I,A]; B32B0027-32 [I,C]; C08K0005-00 [I,A];
 C08K0005-00 [I,C]; C08L0023-00 [I,C]; C08L0023-00 [I,C];
 C08L0023-04 [I,A]; C08L0023-10 [I,A]; C08L0023-14 [I,A];
 C08L0023-20 [I,A]; C08L0023-26 [I,A]; C08L0051-00 [I,A];
 C08L0051-00 [I,C]; C08L0091-00 [I,A]; C08L0091-00 [I,C];
 C09J0123-00 [I,A]; C09J0123-00 [I,C]; C09J0123-00 [I,C];
 C09J0123-10 [I,A]; C09J0123-10 [I,A]; C09J0123-14 [I,A];
 C09J0151-00 [I,C]; C09J0151-06 [I,A]; D01F0006-46 [I,A];
 D01F0006-46 [I,C]

ECLA: C08L0023-10+B5; C08L0023-12+B; C08L0023-14+B;
 C08L0023-14A+B5; C09D0123-10+B2A; C09D0123-10+B5;
 C09D0123-14A+B2A; C09D0123-14A+B5; C09J0123-10+B5;
 C09J0123-14A+B5; C09J0151-06+B; C09J0151-06+B2;
 C09J0151-06+B5; C09J0153-02+B; C09J0153-02+B2;
 C09J0153-02+B5; C09J0155-02+B; C09J0155-02+B2;
 C09J0155-02+B5

ICO: M08L0023:12; M08L0023:14; M08L0051:06; M08L0091:06;
 M08L0205:02; M08L0205:03; M08L0314:06

USCLASS NCLM: 525/240.000

JAP. PATENT CLASSIF.:

MAIN/SEC.: C08L0023-14; C08L0023-20; C08L0023-26; C08L0091-00;
 C09J0123-00; C09J0123-10; C09J0151-06; D01F0006-46 D

FTerm CLASSIF.:

4J002; 4J040; 4L035; 4L035/AA05; 4J002/AE05.3;
 4J002/AF02.5; 4J040/BA18.2; 4J040/BA20.2; 4J002/BB14.1;
 4J002/BB17.3; 4J002/BB21.2; 4J002/CE00.5; 4J040/DA02.2;
 4J040/DA05.2; 4J040/DA09.2; 4J040/DA10.1; 4J040/DA11.1;
 4J040/DA12.2; 4J040/DA13.2; 4J040/DB03.2; 4J040/DC02.2;
 4J040/DC07.2; 4J002/DE07.9; 4J002/DE13.9; 4J002/DE14.9;
 4J002/DE23.9; 4J002/DE28.9; 4J040/DF01.2; 4J040/DF04.2;
 4J040/DF05.2; 4J002/DG04.9; 4J002/DJ01.9; 4J040/DL04.2;
 4J040/DM00.2; 4J002/EC01.7; 4J040/ED00.2; 4J040/EG00.2;
 4J002/EG01.9; 4J002/EG07.9; 4J002/EH14.6; 4J002/EJ02.8;
 4J002/EJ03.8; 4J002/EN03.7; 4J002/FD01.9; 4J002/FD02.3;
 4J002/FD02.6; 4J002/FD07.8; 4J002/FD14.7; 4J002/FD20.9;
 4J002/FD34.5; 4J040/GA07; 4J002/GB00; 4J002/GJ01;
 4J002/GK00; 4J040/HA13.6; 4J040/HB22; 4J040/HD32;

10/596,007

4J040/KA16; 4J040/KA17; 4J040/KA26; 4J040/KA29;
4J040/KA31; 4J040/KA42; 4J040/LA01; 4L035/LA01;
4J040/LA06; 4J040/MA11

BASIC ABSTRACT:

WO 2007002177 A1 UPAB: 20100119

NOVELTY - An adhesive composition (C1) comprising random propylene polymer component having heat of fusion of 1 - 70 J/g and mm triad tacticity index of 75%; non-functionalized plasticizer; and functionalized polymer component containing 2-20C olefin containing 0.1 weight% of a functional group or a contact product of the polymer, where the composition has T-Peel adhesion on polar and non-polar substrate at 20degreesC of 175 N/m (1 lb/in) and the polarity of the polar substrate is 0.10 units higher than the polarity of the non-polar substrate, is new.

DETAILED DESCRIPTION - An adhesive composition (C1) comprises a random propylene polymer component having a heat of fusion of 1 - 70 J/g and an mm triad tacticity index of 75%; a non-functionalized plasticizer; and a functionalized polymer component containing 2-20C olefin containing 0.1 weight% of a functional group or contact product of a polymer containing 2-20C olefin and 0.1 weight% of functional group. The adhesive composition has a T-Peel adhesion on a polar substrate at 20degreesC of 175 N/m (1 lb/in) and a T-Peel adhesion on a non-polar substrate at 20degreesC of 175 N/m Pa (1 lb/in) and the polarity of the polar substrate is 0.10 units higher than the polarity of the non-polar substrate. The functionalized synotactic rich polyolefin is present at less than or equal to 5 weight%.

INDEPENDENT CLAIMS are included for:

(1) preparation of adhesive composition involving: combining a random propylene polymer having a heat of fusion of 1 - 70 J/g, and an mm triad tacticity index of 75%, a functionalized polymer component comprising a 2-20C polymer and 0.1 weight% of a functional group, and a non-functionalized plasticizer, to produce the adhesive composition;

(2) an article comprising the composition (C1); and

(3) a fiber or non-woven fabric partially coated with the adhesive composition (C1).

USE - As adhesive composition in a packaging adhesive, a disposable article, a consumer good, a film, a pressure sensitive adhesive, a laminate article, a fiber product, a hot melt adhesive, a carpet, a tape, a roofing element, a reflective article, a woodworking article, a label for adhering to a substrate, a bookbinding article, a road-marking composition, a sealant composition, a paving composition, a glue stick, a pipe wrapping article, and/or article having a transparent pane; in articles such as nappy, and feminine product; in molded parts; in fibers; and non-woven fabric (claimed); in disposables, packagings, laminates, labels, wood binding, paper binding, reflective coatings and tie layers.

ADVANTAGE - The composition exhibits benefits in adhesive properties to both polar and non-polar substrates. The adhesive composition has a T-Peel adhesion on a polar substrate at 20degreesC of at least 175 N/m (1 lb/in) (preferably at least 350 N/m (2 lb/in), especially at least 525 N/m (3 lb/in), particularly at least 700 N/m (4 lb/in)) and a T-Peel adhesion on a non-polar substrate at 20degreesC of at least 175 N/m Pa (1 lb/in) and the polarity of the polar substrate is at least 0.10 units higher than the polarity of the non-polar substrate. The adhesive composition has a set time of less than or equal to 30 seconds. The adhesive composition has a T-peel adhesion to isotactic polypropylene of greater than about 595 N/m (3.4 lb/in), a T-peel adhesion to aluminum of greater than about 700 N/m (4 lb/in), and a T-peel adhesion to polyester of greater than about 192.5 N/m (1.1 lb/in).

MANUAL CODE: CPI: A08-P01; A12-A05B2; B04-C03B; B12-M02D; B12-M15;
D09-C02B; D09-C03; D09-C04B; F02-C01; F03-D01; G03-B02D3

TECH

INORGANIC CHEMISTRY - Preferred Components: The neutralizing agent (at least 0.1 wt.%) is calcium stearate, magnesium hydroxide, aluminum

hydroxide, and/or hydrotalcite). The filler and/or a nano-composition (at least 0.1 wt.%) is titanium dioxide, calcium carbonate, barium sulfate, silica, silicon dioxide, carbon black, sand, glass beads, mineral aggregates, talc, clay, nanoclay, and/or synthetic nanoclay. The adhesion promoter (at least 0.1 wt.%) is polar acids, polyaminoamides, urethanes, silane ester coupling agents, titanate esters, reactive acrylate monomers, metal acid salts, polyphenylene oxide, oxidized polyolefins, acid modified polyolefins, anhydride modified polyolefins, silanes, titanate, organosilane, acrylics, acids, anhydrides, epoxy resins, hardening agents, polyamides, methylacrylates, epoxies, phenolic resins, polyisobutylene, aminoalkyl, mercaptoalkyl, epoxyalkyl, ureidoalkyl, carboxy, acrylate and isocyanurate functional silane, mercapto-propyltrimethoxysilane, glycidoxpropyl-trimethoxysilane, aminopropyl-triethoxysilane, aminoethyl-aminopropyl-trimethoxysilane, ureidopropyl-trimethoxysilane, bis-gamma-trimethoxysilyl-propylurea, 1,3,5-tris-gamma-trimethoxysilylpropylisocyanurate, bis-gamma-trimethoxy-silylpropylmaleate, fumarate and gamma-methacryloxypropyltrimethoxysilane and/or aminopropyl-triethoxysilane.

ORGANIC CHEMISTRY - Preferred Components: The crosslinking agent (at least 0.1 wt.%) is alcohols, multiols, amines, diamine, triamine, polyamines, ethylenediamine, diethylenetriamine, hexamethylene diamine, diethylamino-propylamine, and/or menthanediamine). The antioxidant (at least 0.1 wt.%) is 2,6-di-t-butyl-para-cresol, 2,4,6-tri-t-butylphenol, vitamin E, 2-t-butyl-6-(3'-t-butyl-5'-methyl-2'-hydroxybenzyl)-4-methylphenyl acrylate, 2,2'-methylene-bis(4-methyl-6-t-butylphenyl), 2,2'-methylene-bis(4-ethyl-6-t-butyl-phenol), 2,2'-methylene-bis(6-cyclohexyl-4-methylphenol), 1,6-hexanediol-bis((3-(3,5-di-t-butyl(4-hydroxyphenyl)))propionate, and/or pentaerythrityl-tetrakis-(3-(3,5-di-t-butyl-4-hydroxyphenyl))propionate). The nucleating agent (at least 0.1 wt.%) is salts of benzoic acid, sodium salt of aromatic carboxylic acid, sodium-2,2'-methylene-bis(4,6-di-t-butylphenyl) phosphate, benzyl sorbitol, 3,4-dimethyl-dibenzylidene sorbital acetal, and/or disodium salt of cis-endo-bicyclo(2.2.1)heptane-2,3-dicarboxylic acid). The oil is aliphatic oil, naphthenic oil and/or white oil. The stabilizer is hindered phenols, sulfur phenols, phosphorous-containing phenols, 1,3,5-trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl) benzene, pentaerythritol tetrakis-3(3,5-di-tert-butyl-4-hydroxyphenyl) propionate, n-octadecyl-3(3,5-di-tert-butyl-4-hydroxyphenyl)propionate, 4,4'-methylene-bis(4-methyl-6-tert-butylphenol), 4,4'-thiobis(6-tert-butyl-ortho-cresol), 2,6-di-tert-butylphenol, 6-(4-hydroxyphenoxy)-2,4-bis(n-octylthio)-1,3,5-triazine, 2,4,6-tris(4-hydroxy-3,5-di-tert-butyl-phenoxy)-1,3,5-triazine, di-n-octadecyl-3,5-di-tert-butyl-4-hydroxybenzyl phosphonate, 2-(n-octylthio)ethyl-3,5-di-tert-butyl-4-hydroxybenzoate, and/or sorbitol hexa-(3,3,5-di-tert-butyl-4-hydroxy-phenyl) propionate, or their derivatives.

POLYMERS - Preferred Composition: The composition comprises (wt.% based on the total weight of the adhesive composition): the random propylene polymer component (0.1 - 99); the functionalized polymer component (0.1 - 99); and non-functionalized plasticizer (0.1 - 99). The composition further comprises an amorphous polypropylene polymer (at least 0.1 wt.%) grafted to isotactic polypropylene polymer, 2-20C polymer, elastomer, an impact copolymer, a tackifier, a crosslinking agent, an antioxidant, a neutralizing agent, a nucleating agent, a filler, an adhesion promoter, an oil, a plasticizer, a wax, and/or an ester polymer. The composition further comprises

a polymer (at least 0.1 wt.%) having an average molecular weight of less than or equal to 5000, where the polymer comprises propylene, butene, pentene, and/or hexene; a blend having two phases, where a discontinuous phase contains a polyester or a propylene-based polymer, and a continuous phase contains the propylene copolymer functionalized with a functional group; 0.1 wt.% of a block, an anti-block, a pigment, a dye, a dyestuff, a processing aid, a UV stabilizer, a lubricant, an adjuvant, a surfactant, a color masterbatch, a flow improver, a crystallization aid, a stabilizer, a defoamer, a preservative, a thickener, a rheology modifier, a humectant, and/or water; and a stabilizer (at least 0.1 wt.%).

Preferred Components: The functionalized polymer component comprises the functional group (preferably maleic anhydride) in an amount of about 0.1 - 10 (preferably 0.5 - 5) wt.%. The random propylene polymer further comprises a comonomer selected from ethylene and other 4-6C alpha-olefins. The random propylene polymer has a percent elongation at break at 20degreesC of greater than or equal to 300%; a flexural modulus of less than 1400 MPa; an average molecular weight (Mw) of less than or equal to 5000000; an average molecular weight (Mn) of less than or equal to 3000000; an average molecular weight (Mz) of less than or equal to 10000000; an Mw/Mn of 1.5 - 40; a specific storage modulus (g') index of greater than 0.99; a crystallization temperature of less than or equal to 140degreesC; a melt flow rate of greater than or equal to 0.2 g/10 minutes; and a heat of fusion of 0.5 - 35 joules/gram. The amorphous polypropylene polymer is 0.1 wt.% of homopolypropylene, isotactic polypropylene, isotactic polypropylene having greater than 50% m-pentads, syndiotactic polypropylene, random copolymer of propylene and butane, random copolymer of propylene and hexene, polybutene, ethylene vinyl acetate, polyethylene having density of 0.915 - less than 0.935 g/cm³, linear polyethylene having a density of 0.915 - less than 0.935 g/cm³, polyethylene having a density of 0.86 - less than 0.90 g/cm³, polyethylene having a density of 0.90 - less than 0.915 g/cm³, polyethylene having a density of 0.935 - 0.945 g/cm³, polyethylene having a density of 0.945 - 0.98 g/cm³, ethylene vinyl acetate, ethylene methyl acrylate, copolymers of acrylic acid, polymethyl-methacrylate, polyvinylchloride, polybutene-1, isotactic polybutene, acrylonitrile butadiene styrene (ABS) resin, ethylene-propylene rubber (EPR), vulcanized EPR, ethylene propylene diene monomer (EPDM), styrene butadiene styrene (SBS), polyamides, polycarbonates, crosslinked polyethylene, copolymers of ethylene and vinyl alcohol, polystyrene, polyesters, polyacrylonitrile homopolymer or copolymers, thermoplastic polyamides, polyacetal, polyvinylidene fluoride, polyethylene glycols, copolymers of isobutylene and para methyl styrene, polybutadiene, polyisoprene, block copolymers of styrene and butadiene of isoprene, and/or hydrogenated block copolymers of styrene and butadiene (SEBS). The tackifier (at least 0.1 wt.%) is either aliphatic hydrocarbon resin, an aromatic modified aliphatic hydrocarbon resin, a hydrogenated polycyclopentadiene resin, polycyclopentadiene resin, gum rosin, gum rosin ester, wood rosin, wood rosin ester, tall oil rosin, tall oil rosin ester, polyterpene, an aromatic modified polyterpene, a terpene phenolic, an aromatic modified hydrogenated polycyclo-pentadiene resin, hydrogenated aliphatic resin, hydrogenated aliphatic aromatic resin, hydrogenated terpene, modified terpene, hydrogenated rosin acid and/or hydrogenated rosin ester; or is a hydrogenated aromatic modified resin produced from dicyclopentadiene feedstock, having a Ring and Ball softening point of 10 - 150degreesC; or is 5C/6C terpene resin, a styrene terpene resin, an alpha-methylstyrene terpene resin, 9C terpene resin, aromatic modified 5C/6C resin, an aromatic modified cyclic resin, and/or aromatic modified dicyclopentadiene based resin; or a resin obtained from cationic polymerization of compositions comprising 5C diolefins, 5C olefins, 6C olefins, 9C

vinylaromatics, dicyclopentadiene, methyl-dicyclopentadiene and/or terpenes; or is a resin or a hydrogenated resin obtained from thermal polymerization of dicyclopentadiene, dimers or oligomers of cyclopentadiene and/or methylcyclopentadiene and/or with vinyl aromatics. The non-functionalized plasticizer comprises carbon and hydrogen, and less than about 5% functional groups (preferably hydroxide, optionally substituted aryls, halogen, alkoxy, carboxyl, ester, carbon-carbon unsaturation, acrylates, oxygen, and nitrogen); and 6-20C paraffin or isoparaffin having a specific gravity of less than or equal to 0.85, and/or a pour point of less than or equal to -20degreesC. The non-functionalized plasticizer has a distillation range having a difference between an upper temperature and a lower temperature of less than or equal to 40degreesC, a final boiling point of 115 - 500degreesC; a number average molecular weight (Mn) of 100 - 2000 g/mol; a dielectric constant at 20degreesC of less than 3; a viscosity of 0.5 - 20 cSt at 25degreesC; and/or glass transition temperature of less than 0degreesC. The non-functionalized plasticizer has a flash point of greater than or equal to 200degreesC, a pour point of less than or equal to -10degreesC, and/or viscosity index of greater than or equal to 120. The non-functionalized plasticizer comprises poly-alpha-olefin oligomers of 5-20C alpha olefins (preferably of 1-octene, 1-decene, and/or 1-dodecene); and oligomers containing isobutylene, 1-butene, and/or 2-butene. The poly-alpha-olefin oligomers have a kinematic viscosity at 100degreesC of greater than or equal to 3 cSt, a viscosity index of greater than or equal to 100, and/or pour point of less than or equal to -10degreesC; have a number average molecular weight of 300 - 21000 g/mol. The plasticizer (at least 0.1 wt.%) is phthalate plasticizer (preferably di-isoundecyl phthalate, di-iso-nonyl phthalate, and/or dioctylphthalate). The wax (at least 0.1 wt.%) is polypropylene wax, polyethylene wax, Fischer-Tropsch wax, oxidized Fischer-Tropsch wax, hydroxy-stearamide wax, functionalized wax, amorphous wax, microcrystalline wax, beeswax, vegetable wax, petroleum wax, paraffin wax, chemically modified hydrocarbon wax, and/or substituted amide wax or their derivatives. The polarity of the polar substrate is at least 0.20 (preferably at least 0.30, especially at least 0.40, particularly at least 0.80) xp units higher than the polarity of the non-polar substrate, where xp for a given substrate 's' is defined by a formula: xp of substrate = polar component of the surface tension of the given substrate arising from dipolar and specific interaction/the surface tension of the given substrate 's'. The surface tension of the substrate is defined by an equation: surface tension of the substrate = dispersion component of the surface tension of the given substrate 's' arising from dispersion-force interactions + the polar component of the surface tension of the given substrate 's' arising from dipolar and specific interactions. The random propylene polymer comprises (mole%): propylene (68 - 92); and a comonomer (8 - 32) (preferably ethylene (13 - 23 mol%)). Preferred Article: The article comprises non-woven substrate.

ABEX EXAMPLE - A random propylene polymer-1 (RPP-1) was prepared by using metallocene catalyst (dimethyl-silyl-bis-indenyl hafnium dimethyl with dimethylanilinium tetrakis(pentafluorophenyl) borate). The RPP had number average molecular weight (Mn)/1000 of 142; weight average molecular weight (Mw)/1000 of 249; tacticity index of 90.9; z average molecular weight (Mz)/1000 of 384; and heat of fusion (Delta-Hf) of 11 J/g was prepared. A random propylene polymer grafted on maleic anhydride (RPP-g-MA-4) having Mn/1000 of 16, Mw/1000 of 66 and Mz/1000 of 103 was prepared. An adhesive composition (test) comprising: RPP-1 (44); (RPP-g-MA-4) (20); PP 3155 (RTM: an isotactic polypropylene having melt flow rate of 35) (16); SpectraSyn 10 (RTM: poly-alpha-olefin) (20) and Irganox 2215 (RTM: phenolic antioxidant) was prepared. A control composition was prepared in a similar manner except that no RPP-g-MA-4 was used. The test/control was evaluated for T-Peel to

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polyethylene terephthalate (PET) after 12 hours, hardness, tensile strength, and toughness. The results for test/control were: T-Peel to polyethylene terephthalate (PET) after 12 hours = 915/7 N/m (lb/in); hardness = 55A/63A; tensile strength = 8.48/11.6 MPa; and toughness = 61/76 MPa respectively.

L123 ANSWER 29 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
ACCESSION NUMBER: 2007-199347 [200720] WPIX
CROSS REFERENCE: 2006-028648; 2006-170769; 2006-231012; 2007-200224
DOC. NO. CPI: C2007-072518 [200720]
TITLE: Adhesive composition for e.g. packaging
adhesive, disposable article or pressure sensitive
adhesive, comprises random propylene polymer component,
functionalized polymer component, and non-functionalized
plasticizer
DERWENT CLASS: A18; A28; A97; D22; F04; F07; G03
INVENTOR: LI F; MATHEW T A; SCHAUDER J H; TSE M F
PATENT ASSIGNEE: (LIFF-I) LI F; (MATH-I) MATHEW T A; (SCHA-I) SCHAUDER J
H; (TSEM-I) TSE M F
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20070021566	A1	20070125	(200720)*	EN	54	[0]

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20070021566	A1	CIP of	US 2004-825348 20040415
US 20070021566	A1	Provisional	US 2004-622964P 20041028
US 20070021566	A1	Provisional	US 2005-694107P 20050624
US 20070021566	A1	CIP of	US 2005-220114 20050906
US 20070021566	A1		US 2006-472063 20060621

PRIORITY APPLN. INFO: US 2006-472063 20060621
US 2004-825348 20040415
US 2004-622964P 20041028
US 2005-694107P 20050624
US 2005-220114 20050906

INT. PATENT CLASSIF.:

IPC ORIGINAL: C08L0023-00 [I,C]; C08L0023-04 [I,A]
ECLA: C09D0123-10+B2A; C09D0123-10+B5; C09D0123-14A+B2A;
C09D0123-14A+B5
ICO: M08L0023:10; M08L0023:12

BASIC ABSTRACT:

US 20070021566 A1 UPAB: 20070322
NOVELTY - An adhesive composition comprises random propylene polymer component having heat of fusion of 1-70 J/g and mm triad tacticity index of greater than or equal to 75%; functionalized polymer component comprising 2-20C olefin comprising 0.1 weight % functional group; and non-functionalized plasticizer. The adhesive composition has a T-Peel adhesion on a polar substrate at 20degreesC of greater than or equal to 175 N/m and a T-Peel adhesion on a non-polar substrate at 20degreesC of greater than or equal to 175 N/m Pa, where the polarity of the polar substrate is greater than or equal to 0.10 units higher than the polarity of the non-polar substrate.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) a process to make the inventive adhesive composition, comprising combining a random propylene polymer, functionalized polymer component, and on-functionalized plasticizer;

(2) an article comprising the inventive adhesive composition;

(3) a molded part comprising the inventive adhesive composition;

(4) a fiber comprising the adhesive composition; and

(5) a non-woven fabric comprising the inventive composition.

USE - The composition is for e.g. packaging adhesive, a disposable article, consumer good, film, pressure sensitive adhesive, a laminate article, fiber product, hot melt adhesive, carpet, tape, roofing element, reflective article, woodworking article, a label for adhering to a substrate, bookbinding article, a road marking composition, sealant composition, paving composition, glue stick, pipe wrapping article, or article having a transparent pane. It is useful for articles e.g. diaper, feminine hygiene product, or articles comprising non-woven substrate. It is also useful for molded part, fiber, or non-woven fabric. (All claimed).

ADVANTAGE - The inventive composition has improved adhesive properties to both polar and non-polar substrates. It avoids the use of aromatic and/or halogenated solvents, thus reducing environmental issues and restraints that may be associated with the use of aromatic and/or halogenated solvents, especially in mass production. It utilizes solvents having lower boiling points than aromatic solvents, thus facilitating the removal of solvent from functionalized polymer at lower temperature and/or high pressure and resulting in less degradation of the polymer, more efficient solvent removal, and an increase in productivity/lower cost of solvent removal. MANUAL CODE: CPI: A04-G01E; A07-A05; A08-P01; A12-A05B2; D09-C03;

F04-C01A; F04-E04; G03-B02; G03-B02D3

TECH

CERAMICS AND GLASS - Preferred Components: The filler and/or a nano-composition can be titanium dioxide, calcium carbonate, barium sulfate, silica, silicon dioxide, carbon black, sand, glass beads, mineral aggregates, talc, clay, nanoclay, and/or synthetic nanoclay.

INORGANIC CHEMISTRY - Preferred Components: The neutralizing agent can be calcium stearate, magnesium hydroxide, aluminum hydroxide, and/or hydrotalcite.

ORGANIC CHEMISTRY - Preferred Components: The functional group is maleic anhydride. The random propylene polymer further comprises a comonomer such as ethylene or other alpha-(4-6C) olefins. The crosslinking agent is alcohols, multi-ols, amines, diamines, triamines, polyamines, ethylenediamine, diethylenetriamine, hexamethylenediamine, diethylanilinepropylamine, and/or menthanediamine. The antioxidant can be 2,6-di-*t*-butyl-*p*-cresol, 2,4,6-tri-*t*-butylphenol, vitamin E, 2-*t*-butyl-6-(3'-*t*-butyl-5' -methyl-2'-hydroxy benzyl)-4-methylphenyl acrylate, 2,2'-methylenebis (4-methyl-6-*t*-butyl phenyl), 2,2'-methylene-bis(4-ethyl- 6-*t*-butyl-phenol), 2,2'-methylene- bis(6-cyclohexyl-4-methylphenol), 1,6-hexanediol-bis(3-(3,5-di-*t*-butyl(4hydroxyphenyl))) propionate, and/or pentaerythrityl- tetrakis-(3-(3, 5 -di-*t*-butyl-4-hydroxyphenyl)) propionate. The nucleating agent can be salts of benzoic acid, sodium salt of aromatic carboxylic acid, sodium-2,2'-methylene-bis(4,6-di- *t*-butylphenyl) phosphate, benzyl sorbitol, 3,4-dimethyl dibenzylidene sorbital acetal, and/or disodium salt of cis-endo bicyclo (2.2.1) heptane-2, 3-dicarboxylic acid. The non-functionalized plasticizer comprises greater than or equal to 0.1 wt.% oil such as aliphatic oil, naphthenic oil, and/or white oil. The stabilizers can be hindered phenols, sulfur phenols, phosphorous-containing phenols, 1,3,5-trimethyl- 2,4,6-tris (3-5di-*tert*-butyl-4- hydroxybenzyl) benzene, pentaerythritol tetrakis-3 (3,5-di-*tert*-butyl-4- hydroxyphenyl) propionate, n-octadecyl-3 (3,5-di-*tert*-butyl-4-hydroxyphenyl) propionate, 4,4'-methylenebis (4-methyl-6-*tert*-

butyl phenol), 4,4'-thio bis(6-tert-butyl-o-cresol), 2,6-di-tert-butylphenol, 6-(4-hydroxyphenoxy)-2, 4-bis(n-octylthio)-1,3,5-triazine, 2,4,6- tris(4-hydroxy-3, 5-di-tert-butyl- phenoxy)-1,3,5-triazine, di-n-octadecyl-3,5-di-tert-butyl-4- hydroxybenzyl phosphonate, 2-(n-octylthio) ethyl-3,5-di-tert-butyl- 4-hydroxybenzoate, sorbitol hexa-(3,3,5-di-tert-butyl-4-hydroxy-phenyl) propionate, and/or their derivatives.

POLYMERS - Preferred Composition: The adhesive composition comprising 0.1-99 wt.% random propylene polymer, 0.1-99 wt.% functionalized polymer component, and 0.1-99 wt.% non-functionalized plasticizer. It further comprises greater than or equal to 0.1 wt.% amorphous polypropylene polymer; greater than or equal to 0.1 wt.% tackifier; greater than or equal to 0.1 wt.% crosslinking agent; greater than or equal to 0.1 wt.% antioxidant; greater than or equal to 0.1 wt % of a neutralizing agent; greater than or equal to 10 wt.% nucleating agent; greater than or equal to 0.1 wt.% filler and/or nanocomposition; greater than or equal to 0.1 wt.% adhesion promoter; greater than or equal to 0.1 wt.% phthalate plasticizer; greater than or equal to 0.1 wt.% wax; greater than or equal to 0.1 wt .% block, antiblock, pigment, dye, dyestuffs, processing aid, UV stabilizer, lubricant, adjuvant, surfactant, color masterbatch, flow improver, crystallization aid, stabilizer, defoamer, preservative, thickener, rheology modifier, humectant, and/or water; and/or greater than or equal to 0.1 wt.% stabilizers. The functionalized polymer component comprises 0.1-10 (preferably 0.5-5) wt.% functional group. Preferred Components: The functionalized polymer component can be homopolypropylene, isotactic polypropylene, isotactic polypropylene having greater than 50% m-pentads, syndiotactic polypropylene, random copolymer of propylene and butane, random copolymer of propylene and hexene, polybutene, ethylene vinyl acetate, polyethylene (having densities of 0.86-0.9, 0.9-0.915, 0.915-0.935, 0.935-0.945, or 0.945-0.98 g/cm³), ethylene vinyl acetate, ethylene methyl acrylate, copolymers of acrylic acid, polymethylmethacrylate, polyvinylchloride, polybutene-1, isotactic polybutene, acrylonitrile butadiene styrene resin, ethylene-propylene rubber (EPR), vulcanized EPR, ethylene-propylene-diene monomer, styrene-butadiene-styrene, polyamides, polycarbonates, crosslinked polyethylene, copolymers of ethylene and vinyl alcohol, polystyrene, polyesters, polyacrylonitrile homopolymer or copolymers, thermoplastic polyamides, polyacetal, polyvinylidene fluoride, polyethylene glycols, copolymers of isobutylene and para methyl styrene, polybutadiene, polyisoprene, block copolymers of styrene and butadiene of isoprene, and/or hydrogenated block copolymers of styrene and butadiene. The amorphous polypropylene polymer is grafted to isotactic polypropylene polymer, 2-20C polymer, elastomer, impact copolymer, tackifier, crosslinking agent, antioxidant, neutralizing agent, nucleating agent, filler, adhesion promoter, oil, plasticizer, wax, and/or ester polymer. The tackifier can be aliphatic hydrocarbon resin, aromatic modified aliphatic hydrocarbon resin, hydrogenated polycyclopentadiene resin, polycyclopentadiene resin, gum rosin, gum rosin ester, wood rosin, wood rosin ester, tall oil rosin, tall oil rosin ester, polyterpene, aromatic modified polyterpene, terpene phenolic, aromatic modified hydrogenated polycyclopentadiene resin, hydrogenated aliphatic resin, hydrogenated aliphatic aromatic resin, hydrogenated terpene, modified terpene, hydrogenated rosin acid, and/or hydrogenated rosin ester. The tackifier can be hydrogenated aromatic modified resin produced from dicyclopentadiene feedstock, or may comprise 5/6C resin, an aromatic modified cyclic resin, and aromatic modified dicyclopentadiene based resin. The adhesion promoter can be polar acids, polyaminoamides, urethanes, silane ester coupling agents, titanate esters, reactive acrylate monomers, metal acid salts, polyphenylene oxide,

oxidized polyolefins, acid modified polyolefins, anhydride modified polyolefins, silanes, titanates, organosilane, acrylics, acids, anhydrides, epoxy resins, hardening agents, polyamides, methylacrylates, epoxies, phenolic resins, polyisobutylene, aminoalkyl, mercaptoalkyl, epoxyalkyl, ureidoalkyl, carboxy, acrylate and isocyanurate functional silanes, mercaptopropyltrimethoxysilane, glycidopropyltrimethoxysilane, aminopropyltriethoxysilane, aminoethyl aminopropyl trimethoxy silane, ureidopropyl trimethoxy silane, bis-gamma--trimethoxysilyl-propylurea, 1,3,5-tris-gamma-trimethoxysilylpropylisocyanurate, bis-gamma-trimethoxy silyl propyl maleate, fumarate and -gamma-methacryloxy- propyl trimethoxy silane, and/or aminopropyltriethoxysilane. The non-functionalized plasticizer comprises polyalpha-olefin oligomers of 5-20C alpha-olefins, preferably polyalpha-olefin oligomers of 1-octene, 1-decene, and/or 1-dodecene. The wax is polypropylene wax, polyethylene wax, Fischer-Tropsch wax, oxidized Fischer-Tropsch wax, hydroxy stearamide wax, functionalized wax, amorphous wax, microcrystalline wax, beeswax, vegetable wax, petroleum wax, paraffin wax, chemically modified hydrocarbon wax, and/or substituted amide wax. The phthalate plasticizer can be di-iso-undecyl phthalate, di-iso-nonylphthalate, and/or dioctylphthalate. Preferred Parameters: The random propylene polymer has a percent elongation at break at 20degreesC of greater than or equal to 300%, flexural modulus of less than 1400 MPa, weight average molecular weight (Mw) of less than or equal to 5000000, number average molecular weight (Mn) of less than or equal to 3000000, z average molecular weight of less than or equal to 10000000, Mw/Mn of 1.5-40, g' index of greater than 0.99, crystallization temperature of less than or equal to 140degreesC, melt flow rate of greater than or equal to 0.2 g/10 minutes, and heat of fusion of 0.5-35 J/g. The adhesive composition has a T-Peel adhesion on a polar substrate at 20degreesC of greater than or equal to 350 (preferably greater than or equal to 700) N/m. The non-functionalized plasticizer comprises distillation range of less than or equal to 40degreesC; final boiling point of 115-500degreesC; number average molecular weight (Mn) of 2000-100 g/mol; dielectric constant at 20degreesC of less than 3; viscosity of 0.5-20 cSt at 25degreesC; glass transition temperature of less than 0degreesC; flash point of greater than or equal to 200degreesC; pour point of -10degreesC; and/or viscosity index of greater than or equal to 120.

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L123 ANSWER 30 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 2006-443703 [200645] WPIX
 CROSS REFERENCE: 2004-080332
 DOC. NO. CPI: C2006-138747 [200645]
 DOC. NO. NON-CPI: N2006-363608 [200645]
 TITLE: B-stage encapsulant used in semiconductor wafer, contains thermal curable resin system, imidazole phosphate salt catalyst, solvent, inorganic filler and fluxing agent, and solidifies at preset temperature during B-stage process
 DERWENT CLASS: A14; A21; A25; A85; L03; U11
 INVENTOR: DUTT G; MA B; TONG Q K; XIAO A Y
 PATENT ASSIGNEE: (DUTT-I) DUTT G; (MABB-I) MA B; (TONG-I) TONG Q K; (XIAO-I) XIAO A Y; (HENK-C) HENKEL&CO AG KGAA
 COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
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 US 20060125119 A1 20060615 (200645)* EN 11[1]
 US 7608487 B2 20091027 (200970) EN

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20060125119	A1	CIP of	<u>US 2002-84873 20020301</u>
US 20060125119	A1		US 2005-284219 20051121
US 7608487	B2	CIP of	<u>US 2002-84873 20020301</u>
US 7608487	B2		US 2005-284219 20051121

PRIORITY APPLN. INFO: US 2005-284219 20051121
US 2002-84873 20020301

INT. PATENT CLASSIF.:

IPC ORIGINAL: H01L0021-00 [I,A]; H01L0021-00 [I,C]; H01L0023-28 [I,C];
 H01L0023-29 [I,A]

IPC RECLASSIF.: C08G0059-00 [I,C]; C08G0059-20 [I,A]; C08G0059-50 [I,A];
 C08G0059-62 [I,A]; C08G0059-68 [I,A]; C08K0003-00 [I,A];
 C08K0003-00 [I,C]; C08K0005-00 [I,A]; C08K0005-00 [I,C];
 C08L0063-00 [I,A]; C08L0063-00 [I,C]; H01L0021-02 [I,C];
 H01L0021-56 [I,A]; H01L0023-28 [I,C]; H01L0023-29 [I,A];
 H01L0023-31 [I,A]

ECLA: C08G0059-50N; C08G0059-68D; H01L0021-56F; H01L0023-29P

USCLASS NCLM: 257/793.000; 438/127.000

NCLS: 257/E21.502; 257/E21.503; 257/E23.119

BASIC ABSTRACT:

US 20060125119 A1 UPAB: 20060714

NOVELTY - B-stage encapsulant contains thermal curable resin system, imidazole phosphate salt catalyst, solvent, inorganic filler and fluxing agent, and solidifies at 80-160degreesC during B-stage process to produce smooth, non-tacky surface on semiconductor wafer or silicon chip and initiates final cure at temperature more than 180degreesC. The resin system contains admixture of epoxy resin(s) and phenol-containing compound(s).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) silicon wafer which has the B-stage underfill composition deposited on one face of the wafer;

(2) manufacture of silicon chips, which involves applying the encapsulant to semiconductor wafer, B-stage processing the encapsulant such that the encapsulant solidifies into a smooth and non-tacky coating, and dicing the wafer into silicon chips; and

(3) manufacture of electronic package, which involves placing the silicon chips on a substrate such that the side of the silicon chip is adjacent to the substrate, and heating the substrate and silicon chip at preset temperature to form interconnections between the chip and the substrate and cure the encapsulant.

USE - Used in semiconductor wafer, silicon wafer, and for manufacturing electronic package (all claimed), especially for protecting and reinforcing interconnections between electronic component and substrate in microelectronic device containing integrated circuit chips, resistors and capacitors.

ADVANTAGE - The encapsulant can be applied directly onto semiconductor wafers before the wafers are diced into individual chips. The unfilled liquid curable material facilitates improved solder fluxing and interconnections between the substrate. MANUAL CODE: CPI: A05-A01E2; A08-D; A08-D04; A08-P01; A08-S01;

A11-B05; A12-E04; A12-E07C; L04-C07E; L04-C17D; L04-C20A;
 L04-F05
 EPI: U11-A07

TECH

ELECTRONICS - Preferred Process: The encapsulant is applied to the semiconductor wafer via spin coating, screen printing or stencil printing. The manufacture of electronic package further involves placing an unfilled liquid curable fluxing material on the substrate before the silicon chip is placed on the substrate. The unfilled liquid curable fluxing material comprises thermal curable resin system.

INORGANIC CHEMISTRY - Preferred Filler: The inorganic filler is chosen from vermiculite, mica, wollastonite, calcium carbonate, titania, sand glass, fused silica, fumed silica, alumina, barium sulfate and halogenated ethylene polymers such as tetrafluoroethylene, trifluoro-ethylene, vinylidene fluoride, vinyl fluoride, vinylidene chloride and/or vinyl chloride.

ORGANIC CHEMISTRY - Preferred Compounds: The imidazole phosphate salt comprises 2-phenyl imidazole dihydrogen phosphate salt. The phosphate salt comprises phosphoric acid compound and is contained in an amount of 0.01-10 wt.%, preferably 0.1-5 wt.%. The solvent is chosen from solvents that are stable and dissolve the resins in the composition. The solvent is chosen from ketones, esters, alcohols, ethers, gamma-butyrolactone and/or propylene glycol methyl ethyl acetate, preferably gamma-butyrolactone and/or propylene glycol methyl ethyl acetate. The solvent is contained in an amount of 60 wt.%. The fluxing agent is carboxylic acid, rosin gum, dodecanedioic acid, adipic acid, sebacic acid, polysebacic polyanhydride, maleic acid tartaric acid, citric acid, alcohols, hydroxyl acid and hydroxyl base, polyols such as ethylene glycol, glycerol, 3-(bis(glycidyl oxy methyl) methoxy)-1,2-propane diol, D-ribose, D-cellobiose, cellulose and/or 3-cyclohexene-1,1-dimethanol, preferably rosin gum, dodecanedioic acid and/or adipic acid. The fluxing agent is contained in an amount of 0.5-20 wt.%, preferably 1-10 wt.% of the encapsulant. The encapsulant further comprises surfactants, coupling agents, reactive diluents, air release agents, flow additives and/or adhesion promoters. The reactive diluent is p-t-butyl-phenyl-glycidyl ether, allyl glycidyl ether, glycerol glycidyl ether and/or glycidyl ether of alkyl.

POLYMERS - Preferred Resin: The epoxy resin is monofunctional or multifunctional glycidyl ether of bisphenol A or bisphenol F, aliphatic epoxy, aromatic epoxy, (un)saturated epoxy, cycloaliphatic epoxy resin and/or epoxies of formulae (A-E). The epoxy resin is 3,4-epoxy cyclohexyl methyl-3,4-epoxy cyclohexane carboxylate, vinyl cyclohexane dioxide, 3,4-epoxy-6-methyl cyclohexyl methyl-3,4-epoxy cyclohexane carboxylate, dicyclopentadiene dioxide, bisphenol A resin, bisphenol F resin, epoxy novolak resin, poly(phenylglycidyl ether) co-formaldehyde, biphenyl type epoxy resin, bicyclopentadiene-phenol epoxy resin, naphthalene epoxy resin, epoxy functional butadiene acrylonitrile copolymer and/or epoxy functional polydimethylsiloxane. The phenol-containing compound is phenolic resin and/or phenol, preferably phenolic novolak resin, diallyl bisphenol A and/or bisphenol A. Preferred Composition: The epoxy resin contains 0.1-99.9 wt.% of epoxy/phenolic-containing compound admixture. The epoxy resin is contained in an amount of 40-95 wt.%. The phenol-containing compound contains 0.1-99.9 wt.%, preferably 5-60 wt.% of epoxy/phenolic-containing compound admixture. The admixture is contained in an amount of 20-80 wt.%. The surfactant is organic acrylic polymers, silicones, epoxy silicones, polyoxyethylene/polyoxypropylene block copolymers, ethylene diamine based polyoxyethylene/polyoxypropylene block copolymers, polyol based polyoxyalkylenes, fatty alcohol-based polyoxyalkylene and/or fatty alcohol polyoxyalkylene alkyl ethers.

ABEX EXAMPLE - EPON 826 (shell epoxy resin) and HRJ2190 (in weight parts) (50) were blended with propylene glycol ethyl methyl acetate and

heated to 143degreesC for 5 hours and 30 minutes. The obtained mixture was cooled and FUSOFE (108), BYK-W 9010 (0.5), A-187 (0.5), VDT-131 (vinyl methyl siloxane-dimethyl siloxane copolymer) (1.8), and 2-phenyl-4-methyl imidazole/pyromellitic anhydride adduct (0.4) were added and mixed. The obtained underfill material was bubble free and had viscosity of 30000 cps. The underfill material was dispensed on a glass substrate and B-staged for 15 minutes. The coatings were found to be smooth, non-tacky and void free, and had glass transition temperature of 46degreesC.

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L123 ANSWER 31 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 2006-296619 [200631] WPIX
 DOC. NO. CPI: C2006-098031 [200631]
 DOC. NO. NON-CPI: N2006-252074 [200631]
 TITLE: Photosensitive thermosetting resin composition for forming resist coated printed wiring board, contains unsaturated group containing polycarboxylic acid resin, diluent, photoinitiator, crystalline epoxy resin and adhesion providing agent
 DERWENT CLASS: A21; A89; G02; L03; P84; V04
 INVENTOR: KOGA Y; KUNO T; KUNOU T; KUROYAGI Y; KUROYANAGI Y; SATO H; SATO K; SATOU K; USUI K; USUI Y
 PATENT ASSIGNEE: (SANE-C) SANEI KAGAKU KK; (SANE-N) SAN EI KAGAKU CO LTD; (YAMA-N) YAMASAKA CHEM CO LTD
 COUNTRY COUNT: 3

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 2006096962	A	20060413	(200631)*	JA	70	[4]
CN 1755524	A	20060405	(200659)	ZH		
TW 2006010791	A	20060401	(200952)	ZH		
CN 1755524	B	20100505	(201043)	ZH		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2006096962	A	<u>JP 2004-311541</u>	<u>20040928</u>
TW 2006010791	A	TW 2005-127358	20050811
CN 1755524	A	CN 2005-10107592	20050928
CN 1755524	B	CN 2005-10107592	20050928

PRIORITY APPLN. INFO: JP 2004-311541 20040928

INT. PATENT CLASSIF.:

MAIN: C09D011-10
 IPC ORIGINAL: C08G0059-00 [I,C]; C08G0059-14 [I,A]; C08G0059-42 [I,A]; G03F0007-004 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]; G03F0007-004 [I,C]; G03F0007-027 [I,A]; G03F0007-027 [I,C]; G03F0007-027 [I,A]; G03F0007-027 [I,C]; G03F0007-032 [I,A]; G03F0007-032 [I,C]; G03F0007-032 [I,A]; G03F0007-032 [I,C]; G03F0007-038 [I,A]; G03F0007-038 [I,C]; H05K0003-00 [I,A]; H05K0003-00 [I,C]

JAP. PATENT CLASSIF.:

MAIN/SEC.: C08G0059-14; C08G0059-42; G03F0007-004 501; G03F0007-004 512; G03F0007-027 515; G03F0007-038 501; H05K0003-00 F

FTERM CLASSIF.: 2H025; 2H125; 4J036; 5E342; 4J036/AA01; 4J036/AA05;

10/596,007

4J036/AB01; 4J036/AB07; 2H025/AB11; 2H025/AB15;
4J036/AB18; 2H025/AC01; 4J036/AC01; 4J036/AC02;
4J036/AC03; 4J036/AC08; 4J036/AC11; 4J036/AC18;
2H025/AD01; 4J036/AD04; 4J036/AD08; 4J036/AD11;
4J036/AD12; 4J036/AD15; 4J036/AD21; 2H025/BC32;
2H025/BC42; 2H025/BC74; 2H025/BC81; 2H025/BC85;
2H025/BC92; 2H025/CA01; 4J036/CA19; 4J036/CA21;
4J036/CA24; 4J036/CA25; 2H025/CA27; 2H025/CA28;
2H025/CC03; 2H025/CC06; 2H025/CC20; 4J036/EA01;
4J036/EA02; 4J036/EA04; 4J036/EA09; 4J036/FA12;
4J036/FA13; 2H025/FA17; 2H025/FA29; 4J036/FB01;
4J036/FB03; 4J036/GA21; 4J036/HA02; 4J036/JA08;
4J036/JA09; 4J036/KA01

BASIC ABSTRACT:

JP 2006096962 A UPAB: 20100712

NOVELTY - A photosensitive thermosetting resin composition contains unsaturated group containing polycarboxylic acid resin, diluent, photoinitiator, crystalline epoxy resin (V) and hardening adhesion providing agent. Polycarboxylic acid resin is a reaction material of epoxy resin (I) and unsaturated group containing monocarboxylic acid, polybasic acid or its anhydride.

DETAILED DESCRIPTION - A photosensitive thermosetting resin composition contains unsaturated group containing polycarboxylic acid resin, diluent, photoinitiator, crystalline epoxy resin of formula (V) and hardening adhesion providing agent. Polycarboxylic acid resin is a reaction material of epoxy resin of formula (I) and unsaturated group containing monocarboxylic acid, polybasic acid or its anhydride.

G=epoxy group of formula (a);

A11,A13,A15=bivalent aromatic residue or hydrogenated aromatic residue;

A12,A14=H or group of formula (a);

a11,a12=0 or integer greater than 0;

E11-E13,E15-E17=H or 1-5C alkyl;

e11,e12=0-3;

E14=-S-, -O-, -CH2-, -C(CH3)2- or group of formula (X) or (F);and

E21-E24=1-6C alkyl.

INDEPENDENT CLAIMS are included for the following:

(1) resist coated printed wiring board, which is formed using the above-mentioned photosensitive thermosetting resin composition; and

(2) manufacture of resist coated printed wiring board, which involves coating a resist (1) or dried photoresist film on a printed wiring board surface using the photosensitive thermosetting resin composition.

USE - As resist ink for forming resist coated printed wiring board (claimed).

ADVANTAGE - The photosensitive thermosetting resin composition has excellent storage stability, developability, electric insulation and thermal shock resistance. The resin composition forms resist coated printed wiring board having outstanding flexibility and adhesion property.

DESCRIPTION OF DRAWINGS - The figure shows sectional drawing of resist coated smooth printed wiring board.

resist (1)

concave portion (3)

cured resin (4)

insulated substrate (5)

conductor circuit (6)

MANUAL CODE:

CPI: A05-A01E2; A08-C01; A08-M01; A08-S02; A10-E07;
A10-E07B; A12-E07A; A12-L02B2; G06-D06A; G06-E04;
G06-F03C; G06-F03D; G06-G17; G06-G18; L03-H04E2
EPI: V04-R04A2; V04-R05D

TECH

POLYMERS - Preferred Polymer: The photosensitive thermosetting resin

composition further has a polymer (P) having carboxyl group and (meth)acryloyl group and having mean molecular weight of 3000-70000 and acid value of 20-160 mgKOH/g, and a thermosetting property component. Polymer (P) is obtained by reacting epoxy group containing unsaturated monomer and carboxyl group or carboxylic anhydride group and hydroxyl group containing (meth)acrylic acid ester, and/or polymer (P1) having carboxyl group. The thermosetting property component is crystalline epoxy resin (E) having melting point of 135-175degreesC, mono-polycarbodiimide compound of formula: $(G21-(N=C=N-G22))g21-N=C=N-G23$, allyl group containing compound and/or oxazoline group containing compound. Three crystalline epoxy resins (E) are claimed such as crystalline epoxy resin of formula (E-2). Allyl group containing compound is allyl group containing prepolymer having mean molecular weight of 400-30000, tri(meth)allyl (iso)cyanurate and/or bis allyl nadimide compound of formula (VII). Oxazoline group containing compound is 2,2-(1,3-phenylene)bis-2-oxazoline and/or oxazoline group containing polymer. Three epoxy resins of formula (I) are claimed such as homopolymerization type resin of formula (I-1), more preferably resin of formula (I-1-1). Nine crystalline epoxy resins of formula (V) are claimed such as crystalline epoxy resin of formula (V-1) or (V-2).

G=same as defined above;

G21,G23=monovalent aromatic, aliphatic or alicyclic residue;

G22=bivalent aromatic, aliphatic or alicyclic residue;

G71=bivalent group of formula (b,c) or $-(CH_2)g81$;

g21=0-30;

g81=4-8;

A31,A33=bivalent aromatic residue or hydrogenated bivalent aromatic residue;

a31,a611=integer greater than 0;and

A32,A611=H or group of formula (a).

Preferred Properties: The softening point of epoxy resin (I) is 50degreesC or more. The melting point of crystalline epoxy resin (V) is 110-135degreesC. The printed wiring board is obtained by filling the concave portion (3) of printed wiring board surface with the resin and smoothening.

ABEX EXAMPLE - Unsaturated group containing polycarboxylic acid resin (in wt.pts) (149) having viscosity of 25 Pa.second, reaction material (4.6) of styrene, butyl acrylate and acrylic acid, dipentaerythrytol hexaacrylate (10), trimethylolpropane triacrylate (10), 2-dimethyl amino-2-(4-methylbenzyl)-1-(4-morpholino phenyl)-butanone-1 (12), 2,4-diethyl thioxanthone (1), crystalline epoxy resin (36) having melting point of 121degreesC, melamine (1), allyl group containing prepolymer (4), silica (30), poly dimethyl siloxane (1) and barium sulfate (70) were mixed to form photosensitive resin composition. The obtained composition was applied on polyethylene terephthalate carrier film and dried. A polyethylene protective film was further coated on the dry film. The protective film was peeled and laminated on smoothened printed wiring board. The carrier film was peeled. The photosensitive film was exposed to ultraviolet ray through negative film. The exposed film was developed and the unexposed portion was removed. The developed portion was dried to form solder resist coated printed wiring board having excellent sensitivity and flexibility. DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L123 ANSWER 32 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 2005-083389 [200510] WPIX
 DOC. NO. CPI: C2005-029101 [200510]
 DOC. NO. NON-CPI: N2005-073147 [200510]
 TITLE: New maleimide compound for seal agents, has sulfonyl

10/596,007

group, and is obtained by reacting compound having hydroxyl group and monocarboxylic acid having maleimide group, or by reacting epoxy resin and maleimide

DERWENT CLASS: A21; A85; E13; G02; L03; P81; U11; U14
PATENT ASSIGNEE: (NIPK-C) NIPPON KAYAKU KK
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
JP 2005002015	A	20050106	(200510)*	JA	30[2]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2005002015	A	<u>JP 2003-165578</u>	<u>20030610</u>

PRIORITY APPLN. INFO: JP 2003-165578 20030610

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C07D0207-00 [I,C]; C07D0207-452 [I,A]; C08F0022-00 [I,C]; C08F0022-40 [I,A]; C08G0059-00 [I,C]; C08G0059-14 [I,A]; C08G0059-50 [I,A]; G02F0001-13 [I,C]; G02F0001-1339 [I,A]; H01L0051-50 [I,A]; H01L0051-50 [I,C]; H05B0033-04 [I,A]; H05B0033-04 [I,C]; H05B0033-14 [I,A]; H05B0033-14 [I,C]

JAP. PATENT CLASSIF.:

MAIN/SEC.: C07D0207-452; C08F0022-40; C08G0059-14; C08G0059-50; G02F0001-1339 500; H05B0033-04; H05B0033-14 A

FTERM CLASSIF.:

2H089; 2H189; 3K007; 3K107; 4C069; 4J036; 4J100; 3K107/AA01; 4J036/AA01; 4J036/AA04; 4J036/AA05; 3K007/AB12; 3K007/AB13; 3K007/AB18; 4J036/AC01; 4J036/AD00; 4J036/AD01; 4C069/AD08; 4C069/AD18; 4J036/AD20; 4J100/AM55.P; 4J100/BA02.P; 4J100/BA58.P; 3K007/BB01; 4C069/BB02; 4C069/BB49; 4C069/BC12; 4J100/BC45.P; 4J100/CA03; 4J036/CA21; 4C069/CC18; 3K107/CC23; 3K107/CC25; 3K107/CC45; 4J036/DA01; 4J036/DA02; 3K007/DB03; 4J036/DC35; 3K107/EE43; 3K107/EE44; 3K107/EE49; 3K107/EE55; 4J036/FA01; 3K007/FA02; 4J036/FA02; 4J036/FA12; 4J036/FB01; 3K107/FF15; 4J036/HA02; 4J100/JA03; 4J036/JA07; 4J036/JA15; 4J100/JA32; 4J100/JA43; 2H089/MA04.Y; 2H089/MA05.Y; 2H089/QA12; 2H089/QA16

BASIC ABSTRACT:

JP 2005002015 A UPAB: 20050708

NOVELTY - A maleimide compound having a sulfonyl group (I) in the molecular structure, is new. The maleimide compound is obtained by reacting a compound (2) having a hydroxyl group, and a monocarboxylic acid having a maleimide group, or by reacting an epoxy resin (3), and a maleimide having a functional group reactive with epoxy group.

DETAILED DESCRIPTION - A maleimide compound having a sulfonyl group of formula (I) in the molecular structure, is new. The maleimide compound is obtained by reacting a compound of formula (2) having a hydroxyl group, and a monocarboxylic acid having a maleimide group, or by reacting an epoxy resin of formula (3), and a maleimide having a functional group reactive with epoxy group.

R1,R2 = 2-6C divalent hydrocarbon group;and
m,n = 0-5.

INDEPENDENT CLAIMS are included for the following:

(1) resin composition containing the maleimide compound;

- (2) seal agent consisting of the resin composition;
- (3) liquid-crystal-display cell sealed by the cured material of the resin composition;
- (4) manufacture of liquid-crystal-display cell, which involves dripping a liquid crystal inside the weir of resin composition formed at one substrate, bonding another substrate, and curing the resin composition; and
- (5) organic electroluminescent display cell sealed by the cured material of the resin composition.

USE - For resin composition used in seal agent, organic electroluminescent display cell, and manufacture of liquid- crystal-display cell (all claimed), and for adhesive agents, adhesives, coating agents, surface treating agents, laminated sheets, printing inks, color resists, and liquid resist inks.

ADVANTAGE - The new maleimide compound provides resin compositions having excellent contamination resistance, bonding workability with substrates, pot life, adhesive strength with respect to liquid crystals, and humidity reliability.

MANUAL CODE: CPI: A05-A01E; A05-H01B; A10-E08A; A10-E08B; A11-B05A; A11-C02C; A12-E04; A12-E11C; A12-L03B; E05-E01; E05-E02; E07-D02; E07-D09D; E10-A19B; E31-K05B; E31-M; E31-P02; E31-P03; E31-P04; E31-P06C; E31-P06D; E31-Q03; E34-B02; E34-B04; E34-C02; E34-C03; E34-D03; E35-M; G02-A05B; L03-G05B; L03-G05F2
EPI: U11-A07; U11-A09; U14-J02B; U14-J02D2; U14-K01A1J; U14-K01A4A

TECH

ORGANIC CHEMISTRY - Preferred Compound: The maleimide having a reactive functional group is a monocarboxylic acid having a maleimide group, or a maleimide compound having a hydroxyl group.

POLYMERS - Preferred Composition: The resin composition further contains a polymerizable compound other than the maleimide compound, an epoxy resin, a hardener for epoxy resin, a filler having an average particle diameter of 3 μm or less, a silane coupling agent, an ion trapping agent, and a core-shell structure cross-linked rubber. The hardener is a polyfunctional dihydrazide, preferably an isophthalic-acid dihydrazide or a dihydrazide having a hydantoin structure. The hardener is a polyhydric phenol compound.

INORGANIC CHEMISTRY - Preferred Agent: The ion trapping agent is bismuth oxide group ion trapping agent, antimony oxide group ion trapping agent, titanium phosphate group ion trapping agent, zirconium phosphate group ion trapping agent, and/or hydrotalcite group ion trapping agent.

ABEX DEFINITIONS - Preferred Definitions: - R1, R2 = ethylene; and - m, n = 0.5-3.

EXAMPLE - 2 mol ethylene oxide addition product of 4,4'-bisphenol S (in g) (67.7) of formula (11), maleimide caproic acid (88.7), toluene (160), hydroquinone (0.9), and methane sulfonic acid (7.47) were reacted at 100-115 degrees C. The reaction mixture was dissolved in toluene (200), neutralized with 25 wt.% caustic soda aqueous solution, and washed thrice with 15 wt.% salt solution (60). The solvent was distilled to obtain a maleimide compound (129.5) of formula (12). A resin composition (liquid-crystal sealing compound) was prepared by mixing (in parts weight) the maleimide compound (40), epoxy resin (20) having epoxy equivalent of 129 g/eq, epoxy acrylate (70) having a viscosity of 40 Pa.second, isophthalic acid dihydrazide (5) having a melting point of 224 degrees C, KBM-603 (TM) (N-beta-(aminoethyl) gamma-aminopropyl trimethoxysilane) (0.6), Paraloid EXL-2655 (TM) (core-shell rubber microparticles having cross-linked polybutadiene core layer and methacrylic acid alkyl styrene copolymer shell layer, and average particle diameter of 200 nm) (7), alumina microparticles (30) having an average particle diameter of 1 micrometers, and IXE-100 (TM)

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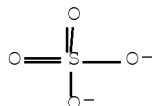
(zirconium phosphate group ion trapping agent) (1). The resin composition had a viscosity of 200 Pa.second, a specific resistance value of 1.5x10 to the power 12 OMEGA.cm, a liquid crystal effluent of 330 ppm, and an adhesive strength of 23 MPa.

AN.S DCR-88364
CN.P BARIUM SULFATE
SDCN R01739
SDRN 1739

CM 1

Ba

CM 2



L123 ANSWER 33 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
ACCESSION NUMBER: 2004-736348 [200472] WPIX
TITLE: Polyurethane sealant for e.g. home construction and repair comprises hydroxy-terminated toluene diisocyanate-polyoxyalkylene polyol prepolymer and isocyanate-terminated toluene diisocyanate-polyoxyalkylene polyol activator component
DERWENT CLASS: A25; A81; E19; G03; G04
INVENTOR: MADAJ E J
PATENT ASSIGNEE: (BADI-C) CONSTR RES & TECHNOLOGY GMBH
COUNTRY COUNT: 4

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
US 20040198900	A1	20041007	(200472)*	EN	13[0]		<--
CA 2461633	A1	20041004	(200472)	EN			<--
BR 2004001011	A	20050111	(200512)	PT			
MX 2004003144	A1	20050301	(200566)	ES			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20040198900	A1	Provisional	US 2003-460741P 20030404
US 20040198900	A1		US 2004-797548 20040310
CA 2461633	A1		CA 2004-2461633 20040322
MX 2004003144	A1		MX 2004-3144 20040402
BR 2004001011	A		BR 2004-1011 20040405

PRIORITY APPLN. INFO: US 2004-797548 20040310

10/596,007

US 2003-460741P 20030404

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C08G0018-00 [I,C]; C08G0018-10 [I,A]; C08G0018-50 [I,A];
C08L0075-00 [I,C]; C08L0075-04 [I,A]; C09K0003-10 [I,A];
C09K0003-10 [I,C]

ECLA: C08G0018-10; C08G0018-50F5F

ICO: M08G0190:00

USCLASS NCLM: 524/589.000

BASIC ABSTRACT:

US 20040198900 A1 UPAB: 20060122

NOVELTY - A polyurethane sealant comprises the reaction product of hydroxy-terminated toluene diisocyanate/polyoxyalkylene polyol prepolymer component, isocyanate-terminated toluene diisocyanate/polyoxyalkylene polyol activator component, and diphenylmethane diisocyanate prepolymer component or diphenylmethane diisocyanate monomer component.

DETAILED DESCRIPTION - A polyurethane sealant comprises a reaction product of hydroxy-terminated toluene diisocyanate/polyoxyalkylene polyol prepolymer component, isocyanate- terminated toluene diisocyanate/polyoxyalkylene polyol activator component, and diphenylmethane diisocyanate prepolymer component or diphenylmethane diisocyanate monomer component. The polyurethane sealant is paintable in the absence of a primer and has a 100% modulus of less than 100 psi in the absence of a plasticizer, where diphenylmethane diisocyanate (calculated as monomer) is 1-3 weight% of the reaction product.

An INDEPENDENT CLAIM is also included for a method for making a sealant comprising providing a base component, activator component and modifier component, where the base component comprises hydroxy- terminated toluene diisocyanate/polyoxyalkylene polyol prepolymer component, the activator component comprises isocyanate- terminated toluene diisocyanate/polyoxyalkylene polyol activator, and the modifier component comprises diphenylmethane diisocyanate prepolymer component or diphenylmethane diisocyanate monomer; and combining the base component, activator component and modifier component to form a polyurethane reaction product.

USE - For use in commercial and home construction and repair, and in the transportation market.

ADVANTAGE - The high performance sealant has low modulus to accommodate joint movement in compression or tension without a plasticizer component that might diffuse out to result in degradation of properties and possible environmental harm. It is paintable in the absence of a primer, thus saving the time and expense of a primer application step. The paint adheres to the surface of the sealant with a rating of at least 4B when tested according to paint adhesion test ASTM D3359.

MANUAL CODE: CPI: A05-G03; A12-A05F; A12-B01K; A12-R08; E10-A14B;
G02-A02H; G03-B02E4; G04-B02

TECH

POLYMERS - Preferred Properties: The hydroxy-terminated toluene diisocyanate/polyoxyalkylene polyol prepolymer component has a number average molecular weight of 3000-20000, preferably 6000-15000. The isocyanate-terminated toluene diisocyanate/polyoxyalkylene polyol activator component has a number average molecular weight of 1000-4000, preferably 1500-3500. The diphenylmethane diisocyanate component has a number average molecular weight of 250-4000, preferably 250-2000. The sealant has a 100% modulus of 40-90 psi. It has a tensile strength of 100 psi or greater, and an elongation to break of 200% or greater.

Preferred Components: The diphenylmethane diisocyanate prepolymer component and/or diphenylmethane diisocyanate monomer component is provided as a mixture with hydroxy-terminated toluene diisocyanate/polyoxyalkylene polyol prepolymer component and/or isocyanate-terminated toluene diisocyanate/polyoxyalkylene

polyol activator component. The polyoxyalkylene polyol of the hydroxy-terminated toluene diisocyanate/polyoxyalkylene polyol prepolymer component or polyoxyalkylene polyol of the isocyanate-terminated toluene diisocyanate/polyoxyalkylene polyol activator component is polyethylene ether glycol, polypropylene ether glycol, poly(tetramethylene ether)glycol and/or polyethers prepared by the copolymerization of cyclic ethers consisting of ethylene oxide, propylene oxide, trimethylene oxide and/or tetrahydrofuran, with aliphatic polyols consisting of ethylene glycol, 1,3-butanediol, diethylene glycol, dipropylene glycol, 1,2-propylene glycol and/or 1,3-propylene glycol. The diphenylmethane diisocyanate prepolymer component additionally comprises an allophanate or polyoxyalkylene polyol. It is isocyanate-terminated or hydroxy-terminated.

The reaction product additionally comprises UV absorbers, antioxidants, stabilizers, mildewcides, biocides, fungicides, fire or flame retardants, fillers, pigments, adhesion promoters, flow and leveling additives, wetting agents, antifoaming agents and/or rheology modifiers.

The composition additionally comprises rheology modifier(s) consisting of fumed silica, hydroxyethyl cellulose, hydroxypropyl cellulose, polyamide waxes, modified castor oil and/or clay intercalated with organic cations.

Preferred Composition: The diphenylmethane diisocyanate (calculated as monomer) is 1-2 wt.% (preferably 2-3 wt.%) of the reaction product. The toluene diisocyanate (calculated as monomer) is 1-20 wt.% of the reaction product. The hydroxy-terminated toluene diisocyanate/polyoxyalkylene polyol prepolymer component comprises 10-92 wt.% (preferably 20-80 wt.%) of the reaction product. The isocyanate-terminated toluene diisocyanate/polyoxyalkylene polyol activator component comprises 1-40 wt.% (preferably 5-20 wt.%) of the reaction product. The mole ratio of isocyanate-terminated end groups to hydroxy-terminated end groups is 0.5:1-3:1. The paint is latex paint, solvent-borne paint or solvent-free paint.

ORGANIC CHEMISTRY - Preferred Components: The composition additionally comprises UV stabilizer(s) consisting of 2-(2'-hydroxyphenyl)benzotriazoles, 2-hydroxybenzophenones, esters of optionally substituted benzoic acids, acrylates, nickel compounds, sterically hindered amines, oxanilides and/or 2-(2-hydroxyphenyl)-1,3,5-triazines.

The composition additionally comprises antioxidant(s) consisting of alkylated monophenols, alkylthiomethylphenols, (alkylated) hydroquinones, tocopherols, hydroxylated thiodiphenyl ethers, alkylidene bisphenols, O-, N- and S-benzyl compounds, hydroxybenzylated malonates, aromatic hydroxybenzyl compounds, triazine compounds, benzylphosphonates, acylaminophenols, esters of beta-(3,5-di-tert.-butyl-4-hydroxyphenyl)propionic acid with mono- or polyhydric alcohols, esters of beta-(5-tert-butyl-4-hydroxy-3-methylphenyl)propionic acid with mono- or polyhydric alcohols, esters of beta-(3,5-dicyclohexyl-4-hydroxyphenyl)propionic acid with mono- or polyhydric alcohols, esters of 3,5-di-tert-butyl-4-hydroxyphenyl acetic acid with mono- or polyhydric alcohols, amides of beta-(3,5-di-tert-butyl-4-hydroxyphenyl)propionic acid, ascorbic acid and derivatives and/or aminic antioxidants.

The composition additionally comprises fire or flame retardant(s) consisting of triphenyl phosphate, polyammonium phosphate, monoammonium phosphate, tri(2-chloroethyl) phosphate, melamine, exfoliated graphite and/or acid-treated natural graphite flakes.

The composition additionally comprises pigment(s) consisting of carbon black, titanium dioxide, barium sulfate, zinc oxide, zinc sulfide, basic lead carbonate, antimony trioxide, lithopones, iron oxides, graphite luminescent pigments, zinc yellow, zinc green,

ultramarine, manganese black, antimony black, manganese violet, Paris blue, Schweinfurter green, sepia, gamboge, Cassel brown, toluidine red, para red, Hansa yellow, indigo, azo dyes, anthraquinonoid and indigoid dyes, dioxazine, quinacridone, phthalocyanine, isoindolinone and/or metal complex.

The composition additionally comprises flow and leveling additive, wetting agent or antifoaming agent consisting of (modified) silicones, hydrocarbons, polyacrylates and/or fluorosurfactants.

The composition additionally comprises adhesion promoter(s) consisting of 2-aminoethyl-dimethylmethoxysilane, 6-aminohexyltributoxysilane, 3-aminopropyl-trimethoxysilane, 3-aminopropyl-triethoxysilane, 3-aminopropyl-methyldiethoxysilane, 5-aminopentyl-trimethoxysilane, 5-aminopentyl-triethoxysilane and 3-aminopropyl-triisopropoxysilane, gamma-glycidoxypropyltrimethoxysilane, gamma-glycidoxypropyltriethoxysilane, gamma-mercaptopropyltrimethoxysilane, gamma-mercaptopropyltriethoxysilane, gamma-ureidopropyltrimethoxysilane and/or gamma-ureidopropyltriethoxysilane.

The composition additionally comprises chain extender(s) consisting of hydroxyl containing chain extenders or amine containing chain extenders. The chain extender is ethylene glycol, 1,3-propanediol, 2-methyl-1,3-propanediol, 1,4-butanediol, neopentyl glycol, diethylene glycol, ethylene diamine, 1,3-propanediamine, 1,4-butanediamine, 1,3-pentanediamine, 1,5-pentanediamine, 1,6-hexane diamine and/or 2-methylpentamethylenediamine.

INORGANIC CHEMISTRY - Preferred Composition: The composition additionally comprises filler(s) consisting of carbon black, titanium dioxide, zinc oxide, glass spheres, iron particles, quartz, hydrophilic silica, hydrophobic amorphous fumed silica, amorphous precipitated silica, barytes, limestone, sulfates, alumina, clays, diatomaceous earth, wollastonite, mica, perlite, flint powder, cryolite, talc, polymer granules, polymer powders, micronized polymers, melamine and/or zinc oxide.

The substrate is concrete, stone, metal, glass, plastic, wood or composite materials.

ABEX EXAMPLE - A hydroxy-terminated toluene diisocyanate/polyoxyalkylene polyol prepolymer SONOLASTIC NP2 (RTM) base in a mixture of fillers, catalysts and other additives (134.6 g), and SONOLASTIC NP2 (RTM) activator (17 g) (isocyanate-terminated toluene diisocyanate/polyoxyalkylene polyol activator containing mineral spirits and catalysts), black pigment slurry (11.1 g), and Mondur ML (RTM; isomer mixture of monomeric diphenylmethane diisocyanate with 52% 2',4' isomer) (2.3 g) were mixed. The product was drawn down on a plastic sheet and allowed to cure for 5 days under ambient conditions. The sealant had 100% modulus of 56 psi, peak tensile strength of 112 psi and elongation at break of 298%. A portion of the sealant was painted with SONNEBORN COLORFLEX (RTM; acrylic latex elastomeric paint) and allowed to dry for 1 week under ambient conditions. Adhesion was tested, with a result of 5B, corresponding to 100% adhesion.

L123 ANSWER 34 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 2003-315905 [200331] WPIX
 DOC. NO. CPI: C2003-083123 [200331]
 DOC. NO. NON-CPI: N2003-251585 [200331]
 TITLE: Thermosetting resin composition, comprises an adduct of an epoxy resin with an unsaturated aliphatic acid, a (meth) acrylate, a radical polymerization

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initiator, a crystallizable epoxy resin, and a
latent curing agent
DERWENT CLASS: A14; A21; A85; L03; P42; P73; V04; X12
INVENTOR: KITAMURA K; SATO K
PATENT ASSIGNEE: (SANE-C) SANEI KAGAKU KK; (KITA-I) KITAMURA K; (SATO-I)
SATO K; (YAMA-N) YAMAHIDE CHEM CO LTD; (SANE-C) SAN EI
KAGAKU CO LTD
COUNTRY COUNT: 35

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
EP 1277798	A2	20030122	(200331)*	EN	36	[8]	<--
JP 2003026765	A	20030129	(200331)	JA	27		<--
KR 2003009192	A	20030129	(200336)	KO			<--
CN 1398918	A	20030226	(200337)	ZH			<--
US 20030162898	A1	20030828	(200357)	EN			<--
US 6812299	B2	20041102	(200472)	EN			<--
TW 593530	A	20040621	(200506)	ZH			<--
US 20050019582	A1	20050127	(200509)	EN			
CN 1170885	C	20041013	(200615)	ZH			<--
KR 584435	B1	20060526	(200708)	KO			
JP 3911690	B2	20070509	(200731)	JA	35		
EP 1277798	B1	20070912	(200761)	EN			
DE 60222340	E	20071025	(200770)	DE			
DE 60222340	T2	20080619	(200843)	DE			
US 7410673	B2	20080812	(200855)	EN			

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1277798	A2	EP 2002-254914	20020712
JP 2003026765	A	JP 2001-253678	20010719
JP 3911690	B2	JP 2001-253678	20010719
TW 593530	A	TW 2002-114427	20020628
US 20030162898	A1	US 2002-191126	20020708
US 6812299	B2	US 2002-191126	20020708
US 20050019582	A1 Div Ex	US 2002-191126	20020708
DE 60222340	E	DE 2002-60222340	20020712
DE 60222340	T2	DE 2002-60222340	20020712
DE 60222340	E	EP 2002-254914	20020712
DE 60222340	T2	EP 2002-254914	20020712
CN 1398918	A	CN 2002-126239	20020717
CN 1170885	C	CN 2002-126239	20020717
KR 2003009192	A	KR 2002-41915	20020718
KR 584435	B1	KR 2002-41915	20020718
US 20050019582	A1	US 2004-920809	20040818
US 7410673	B2 Cont of	US 2002-191126	20020708
US 7410673	B2	US 2004-920809	20040818

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 60222340	E	EP 1277798 A
DE 60222340	T2	EP 1277798 A
JP 3911690	B2	JP 2003026765 A
KR 584435	B1	KR 2003009192 A

10/596,007

US 20050019582 A1
US 7410673 B2

Div ex
Cont of

US 6812299 B
US 6812299 B

PRIORITY APPLN. INFO: JP 2001-253678 20010719

INT. PATENT CLASSIF.:

MAIN: B32B027-38; C08L063-00; C08L063-10
SECONDARY: B05D001-38; C08G059-18
IPC ORIGINAL: B05D0003-02 [I,A]; B05D0003-02 [I,C]; B05D0003-10 [I,A];
B05D0003-10 [I,C]; B05D0003-12 [I,A]; B05D0003-12 [I,C];
C08F0290-00 [I,C]; C08F0290-06 [I,A]; C08G0059-00 [I,C];
C08G0059-00 [I,C]; C08G0059-18 [I,A]; C08G0059-18 [I,A];
C08G0059-20 [I,A]; C08L0063-00 [I,A]; C08L0063-00 [I,C];
C08L0063-00 [I,A]; C08L0063-00 [I,C]; C08L0063-10 [I,A];
C08L0063-10 [I,A]; H05K0003-46 [I,A]; H05K0003-46 [I,C]
IPC RECLASSIF.: C08F0283-00 [I,C]; C08F0283-10 [I,A]; C08F0290-00 [I,C];
C08F0290-06 [I,A]; C08G0059-00 [I,C]; C08G0059-18 [I,A];
C08G0059-20 [I,A]; C08L0063-00 [I,C]; C08L0063-10 [I,A];
H01L0023-48 [I,C]; H01L0023-498 [I,A]; H05K0003-00 [N,A];
H05K0003-00 [N,C]; H05K0003-28 [N,A]; H05K0003-28 [N,C];
H05K0003-46 [I,A]; H05K0003-46 [I,C]
ECLA: C08F0283-10; C08G0059-18; C08L0063-10+B4Z1;
H01L0023-498M8; H05K0003-46B5
ICO: T05K0003:00R; T05K0003:28; T05K0003:46C1
USCLASS NCLM: 427/386.000; 428/413.000; 525/107.000
NCLS: 257/E23.077; 427/340.000; 427/341.000; 427/355.000;
427/379.000; 427/402.000; 428/414.000; 428/901.000;
523/400.000; 525/485.000; 525/486.000; 525/524.000;
525/525.000; 525/526.000

JAP. PATENT CLASSIF.:

MAIN/SEC.: C08F0290-06; C08G0059-20; H05K0003-46 X
FTerm CLASSIF.: 4J027; 4J036; 4J127; 5E346; 4J036/AA01; 4J127/AA03;
4J127/AA04; 4J036/AA05; 4J127/AA06; 5E346/AA17;
5E346/AA43; 4J036/AC02; 4J036/AC03; 4J036/AD01;
4J036/AD07; 4J036/AD08; 4J027/AE01; 4J027/AE02;
4J027/AE03; 4J027/AE04; 4J036/AF01; 4J036/AF06;
4J036/AF15; 4J036/AH07; 4J036/AJ08; 4J036/AJ18;
4J036/AK19; 4J027/BA02; 4J027/BA07; 4J027/BA13;
4J027/BA17; 4J027/BA19; 4J027/BA23; 4J127/BB03.1;
4J127/BB03; 4J127/BB04.1; 4J127/BB04; 4J127/BB05.1;
4J127/BB05; 4J127/BB08.1; 4J127/BB08; 4J127/BB11.1;
4J127/BB11; 4J127/BB13.1; 4J127/BB13; 4J127/BB22.1;
4J127/BB22; 4J127/BC02.1; 4J127/BC02; 4J127/BC03.1;
4J127/BC03; 4J127/BC05.1; 4J127/BC05; 4J127/BC13.1;
4J127/BC13; 4J127/BD16.1; 4J127/BD16; 4J127/BD17.1;
4J127/BD17; 4J127/BD18.1; 4J127/BD18; 4J127/BD19.1;
4J127/BD19; 4J127/BE33.1; 4J127/BE33.Y; 4J127/BE33;
4J127/BE34.1; 4J127/BE34.Y; 4J127/BE34; 4J127/BF29.1;
4J127/BF29.Y; 4J127/BF29; 4J127/BF30.1; 4J127/BF30;
4J127/BF31.1; 4J127/BF31.Y; 4J127/BF31; 4J127/BG04.1;
4J127/BG04.Y; 4J127/BG04; 4J127/BG05.1; 4J127/BG05.Y;
4J127/BG05; 4J127/BG10.1; 4J127/BG10.Y; 4J127/BG10;
4J127/BG17.1; 4J127/BG17.Y; 4J127/BG17; 4J127/BG20.1;
4J127/BG20.Y; 4J127/BG20; 4J027/CA10; 4J036/CA21;
4J027/CA25; 4J027/CA31; 4J127/CB01.3; 4J027/CB03;
4J127/CB15.2; 4J127/CB15.3; 4J127/CB15; 4J127/CB28.1;
4J127/CB28.2; 4J127/CB28.3; 4J127/CB28; 4J127/CB34.1;
4J127/CB34.3; 4J127/CB34.4; 4J127/CB34; 4J127/CB37.1;
4J127/CB37.2; 4J127/CB37.3; 4J127/CB37; 4J127/CC02.1;
4J127/CC02.2; 4J127/CC02.3; 4J027/CC02; 4J127/CC02;
4J127/CC12.3; 4J127/CC12; 4J127/CC16.1; 4J127/CC16.3;

10/596,007

4J127/CC16; 5E346/CC32; 4J027/CD01; 4J027/CD06;
4J027/CD08; 4J036/DA01; 4J127/DA52; 4J036/DC02;
4J036/DC19; 4J036/DC31; 4J036/DC35; 4J036/DC41;
4J036/DD01; 5E346/DD03; 4J036/DD07; 5E346/DD12;
5E346/DD32; 4J127/FA38; 5E346/GG40; 4J036/JA07;
4J036/JA08

BASIC ABSTRACT:

EP 1277798 A2 UPAB: 20050903

NOVELTY - A thermosetting resin composition comprising:

(I) an adduct of an epoxy resin with an unsaturated aliphatic acid;
(II) a (meth) acrylate;
(III) a radical polymerization initiator;
(IV) a crystallizable epoxy resin; and
(V) a latent curing agent, capable of a primary curing at a relatively low temperature, and a secondary curing at a relatively high temperature.

USE - Thermosetting resin composition is useful for an undercoat of a printed wiring board without unevenness on its surface.

ADVANTAGE - By using the thermosetting resin composition, the polishing of the cured film can be easily carried out and the highly smooth board (smooth (multi-layer) printed wiring board) can be produced, also it can be made possible to leave no air bubbles in the cured film. The smooth board prepared by the use of the thermosetting resin composition is excellent in solder-resistance, humidity-resistance, etc..

DESCRIPTION OF DRAWINGS - Figure is a cross-sectional view of the printed wiring board the recess between conductor circuits on which is smoothed.

MANUAL CODE: CPI: A02-A03; A04-F06E; A07-A04A; A08-C01; A08-C07;
A10-C03; A10-E07B; L03-H04E1
EPI: V04-R03E; V04-R07L; X12-E02B

TECH

POLYMERS - Preferred Components: Component (I) is an epoxy resin having an epoxy value of 130 - 400, preferably 150 - 250. The epoxy resin is selected from polyfunctional phenol, an epoxy resin having a naphthalene skeleton, a glycidylamine-type epoxy resin, an epoxy resin having a triazine skeleton, a glycidylester-type epoxy resin and an alicyclic-type epoxy resin. Component (II) comprises esters of (meth) acrylic acids with hydroxyl compounds. Component (III) comprises an initiator for the primary curing reaction and has a radical polymerization starting temperature higher than the melting point of the crystallizable epoxy resin (IV) and lower than the starting temperature of the secondary curing reaction. Component (III) has a radical polymerization temperature of 60 - 150 degreesC, preferably 90 - 120 degreesC. Component (III) includes an unsaturated bond derived from an unsaturated aliphatic acid which takes part in the primary curing reaction in preference to an epoxy group. Component (IV) has a melting point between ambient temperatures and the primary curing reaction starting temperature. The melting point of component (IV) is 80 - 110 degreesC, preferably 90 - 105 degreesC. The viscosity of component (IV) when above its melting point is below 50mPa. Component (IV) is only slightly soluble in the thermosetting resin composition as a whole. Component (V) comprises a latent curing agent for the secondary curing reaction and has a curing reaction starting temperature which is higher than the primary curing reaction starting temperature. Component (V) has a curing starting temperature of 150 - 220 degreesC, preferably 170 - 200 degreesC. Preferred Composition: The composition contains additives selected from fillers, organic inorganic coloring agents, fire retardants and anti-foaming agents. The composition is such that it comprises 100 parts by weight of the component (I), 50 - 300 parts by weight of the component (II), 5 - 20 parts by weight of the

component (III), 50 - 200 parts by weight of the component (IV) and 5 - 30 parts by weight of the component (V). Preferably the comprises 100 parts by weight of the component (I), 150 - 250 parts by weight of the component (II), 8 - 15 parts by weight of the component (III), 60 - 120 parts by weight of the component (IV) and 10 - 20 parts by weight of the component (V).

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L123 ANSWER 35 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 2002-668370 [200272] WPIX
 CROSS REFERENCE: 1998-170838
 DOC. NO. CPI: C2002-187876 [200272]
 DOC. NO. NON-CPI: N2002-528772 [200272]
 TITLE: Radiation curable resin composition for fibrous molded products, comprises liquid constituent selected from (meth)acrylate compounds, filler and photoinitiator
 DERWENT CLASS: A14; A21; A89; E11; E37; G06; P83; P84
 INVENTOR: HARUTA Y; TAKASE H; UKACHI T; WATANABE T
 PATENT ASSIGNEE: (STAM-C) DSM NV; (NIFI-N) JAPAN FINE COATINGS CO LTD; (JAPS-C) JAPAN SYNTHETIC RUBBER CO LTD
 COUNTRY COUNT: 5

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 1213612	A2	20020612	(200272)*	EN	18[5]	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1213612	A2 Div Ex	EP 1997-202879	19970919
EP 1213612	A2	EP 2001-758	19970919

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1213612	A2	EP 830928 A

PRIORITY APPLN. INFO: JP 1996-250585 19960920

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C08F0002-46 [I,C]; C08F0002-48 [I,A]; C08F0022-00 [I,C];
 C08F0022-10 [I,A]

ECLA: C08F0002-48; C08F0022-10B

BASIC ABSTRACT:

EP 1213612 A2 UPAB: 20050527

NOVELTY - A radiation curable resin composition comprises:

- (1) liquid constituent(s);
- (2) photoinitiator(s); and
- (3) at least 50 weight % of a filler.

The liquid constituent is selected from tri(meth)acrylate compounds, tetra(meth)acrylate compounds, penta(meth)acrylate compounds and hexa(meth)acrylate compounds.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Manufacture of an article which involves applying a thin layer of radiation curable resin composition on a supporting stage, selectively

irradiating the thin layer of resin to cure a selected portion of the resin and further applying a thin layer of resin, and repeating the process, to obtain several three dimensional cured layers; and

(2) Article obtained by the process.

USE - For manufacturing fibrous material mold.

ADVANTAGE - The resin has good water resistance, strength retention and durability, upon curing.

DESCRIPTION OF DRAWINGS - The figure shows the diagrammatic sectional view of mold used for pulp molding. MANUAL CODE: CPI: A08-C01; A08-D01; A08-R01; A11-B09C; A11-B16;

A11-C02B; E05-E01; E05-E02C; E05-E02D; E07-A03B;
E10-E04G; E10-E04K; E10-G02G1; E31-P03; E31-P06C;
E31-P06D; E31-Q03; E34-B; E34-C02; E34-D02; E34-D03; E35;
G06-F03B; G06-F03D

TECH

INORGANIC CHEMISTRY - Preferred Components: The inorganic fillers are surface-treated with a silane.

The silane coupling agent is chosen from vinyl trichlorosilane, vinyl tris(beta-methoxyethoxy) silane, vinyltriethoxy silane, vinyltrimethoxy silane, gamma-(methacryloxypropyl) trimethoxy silane, beta-(3,4-epoxycyclohexyl) ethyltrimethoxy silane, gamma-glycydoxypropyl trimethoxy silane, gamma-glycydoxypropyl methyl diethoxy silane, N-beta(aminoethyl)-gamma-aminopropyl trimethoxy silane, N-beta-(aminoethyl)-gamma-aminopropyl methyldimethoxy silane, gamma-aminopropyl triethoxy silane, N-phenyl-gamma-amino propyl trimethoxy silane, gamma-mercaptopropyl trimethoxysilane and gamma-chloropropyl trimethoxy silane.

POLYMERS - Preferred Components: The liquid constituent comprises a cationic polymerizable compound composed of 50 weight % or more of an epoxy containing compound chosen from

3,4-epoxycyclohexylmethyl-3',4'-epoxycyclohexane carboxylate and bis-(3,4-epoxycyclohexylmethyl) adipate.

The resin composition includes a resin or a polymer selected from epoxy resin, polyamide(imide), polyurethane, polybutadiene, polychloroprene, polyether, polyester, styrene/butadiene-styrene block copolymer, petroleum resin, xylene resin, ketone resin, cellulose resin, fluorine containing oligomer and silicon containing oligomer.

ABEX SPECIFIC COMPOUNDS - The liquid constituent is (ethylene oxide-modified) trimethylolpropane tri(meth)acrylate, dipentaerythritol hexa(meth)acrylate, dipentaerythritol penta(meth)acrylate and di-tri-methylolpropane tetra(meth)acrylate. - The filler is an inorganic filler selected from silica powder, glass powder, alumina, alumina hydrate, magnesium oxide, magnesium hydroxide, barium sulfate, calcium sulfate, calcium carbonate, magnesium carbonate, silicate mineral, diatomaceous earth, silica sand, silica powder, titanium oxide, aluminum powder, bronze, zinc powder, copper powder, lead powder, gold powder, silver dust, glass fiber, potassium titanate whiskers, carbon whiskers, sapphire whiskers, verification rear whiskers, boron carbide whiskers, silicon carbide whiskers and silicon nitride whiskers.

EXAMPLE - A homogeneous resin solution was prepared by mixing UVR-6110 (RTM, 3,4-epoxycyclohexyl methyl-3',4'-epoxycyclohexane carboxylate) (in weight parts) (23), Araldite DY-220 (RTM, butanediol diglycidyl ether) (8.6), SP-171 (RTM, triaryl sulfonium hexafluoroantimonate) photopolymerization initiator (0.95), VISCOAT-295 (RTM, trimethylolpropane triacrylate) (3.9), KAYARAD DPHA (RTM, dipentaerythritol hexacrylate) (2.4), Irgacure 184 (RTM, 1-hydroxycyclohexylphenyl ketone) (0.95) and Silace S530 (RTM,

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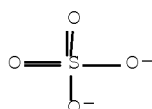
beta-(3,4-epoxycyclohexyl) ethyltrimethoxy silane) (0.60), and agitating the mixture for 2 hours at 40 degrees C. Then, SUNSPHERE NP-100 (RTM, silica beads) (59.6) were added to the resin solution and dispersed in the solution using a homogenizer at room temperature, to obtain a resin composition. The viscosity of the resin composition was measured as 4800 cps at 25 degrees C. A test sample was made by curing the resin composition, and Young's modulus was found to be 710 kg/mm2.

AN.S DCR-88364
CN.P BARIUM SULFATE
SDCN R01739
SDRN 1739

CM 1

Ba

CM 2



L123 ANSWER 36 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
ACCESSION NUMBER: 2000-173406 [200016] WPIX
DOC. NO. CPI: C2000-054086 [200016]
DOC. NO. NON-CPI: N2000-129102 [200016]
TITLE: Composition for sealing pipe in a well bore
comprises an aqueous rubber latex, a rubber latex
activator, an organosilane compound and a
filler
DERWENT CLASS: A18; A21; A88; E19; H01; Q49
INVENTOR: CHATTERJI J; CROMWELL R S; KING B J; ONAN D D
PATENT ASSIGNEE: (HALL-C) HALLIBURTON ENERGY SERVICES INC
COUNTRY COUNT: 28

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
EP 980957	A1	20000223	(200016)*	EN	17[6]		<--
NO 9903938	A	20000221	(200020)	NO			<--
CA 2280388	A1	20000218	(200031)	EN			<--
US 6098711	A	20000808	(200040)	EN			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 980957 A1		<u>EP 1999-306504</u>	<u>19990818</u>

10/596,007

US 6098711 A
CA 2280388 A1
NO 9903938 A

US 1998-135998 19980818
CA 1999-2280388 19990817
NO 1999-3938 19990817

PRIORITY APPLN. INFO: US 1998-135998 19980818

INT. PATENT CLASSIF.:

IPC RECLASSIF.: C09K0008-42 [I,A]; C09K0008-42 [I,C]

ECLA: C09K0008-42

BASIC ABSTRACT:

EP 980957 A1 UPAB: 20050830

NOVELTY - The composition hardens into a highly resilient solid mass having high bond strength and comprises an aqueous rubber latex in an amount of from 10% to 90% by weight of the composition; a rubber latex activator for causing the rubber latex to harden, in an amount of from 0.1% to 5% by weight of the composition; an organosilane compound in an amount of from 0.1% to 10% by weight of the composition; and a filler in an amount of from 10% to 30% by weight of the composition.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of sealing pipe in a well bore, comprising placing a sealing composition in an annulus between the pipe and the walls of the well bore; and allowing the composition to harden into a solid mass.

USE - Used for sealing pipe in well bore.

ADVANTAGE - Provides composition highly resilient solid mass having high bond strength.

MANUAL CODE: CPI: A12-H02D1; A12-W10; E05-E02D; E31-P03; E34-B01;
E34-C02; E34-D01; E34-D03; E35-C; E35-U02; H01-C02B

Member(0004)

ABEQ US 6098711 A UPAB 20050830

NOVELTY - The composition hardens into a highly resilient solid mass having high bond strength and comprises an aqueous rubber latex in an amount of from 10% to 90% by weight of the composition; a rubber latex activator for causing the rubber latex to harden, in an amount of from 0.1% to 5% by weight of the composition; an organosilane compound in an amount of from 0.1% to 10% by weight of the composition; and a filler in an amount of from 10% to 30% by weight of the composition.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method of sealing pipe in a well bore, comprising placing a sealing composition in an annulus between the pipe and the walls of the well bore; and allowing the composition to harden into a solid mass.

USE - Used for sealing pipe in well bore.

ADVANTAGE - Provides composition highly resilient solid mass having high bond strength.

TECH

ORGANIC CHEMISTRY - Preferred composition: The aqueous rubber is selected from cis-polyisoprene rubber nitrile rubber, ethylene-propylene rubber, styrene-butadiene rubber, nitril-butadiene rubber, butyl rubber and neoprene rubber. The aqueous rubber latex is an aqueous styrene-butadiene latex. The aqueous styrene-butadiene latex contains 50% water (by weight of the latex), and the weight ration of styrene to a butadiene in the latex is 25:75%.

AN.S DCR-88364

CN.P BARIUM SULFATE

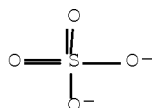
SDCN R01739

SDRN 1739

CM 1

Ba

CM 2



L123 ANSWER 37 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 1998-437266 [199837] WPIX
 DOC. NO. CPI: C1998-132956 [199837]
 DOC. NO. NON-CPI: N1998-340671 [199837]
 TITLE: Resin composition used as adhesives and encapsulant(s) - comprises cycloaliphatic epoxy functional siloxane, non-silicon-containing di-, tri- or poly-epoxy* resin and iodonium salt
 DERWENT CLASS: A21; A26; A81; E11; E12; G03; L03; P73; U11; X12
 INVENTOR: GHOSHAL R; MUKERJI P
 PATENT ASSIGNEE: (MOTI-C) MOTOROLA INC; (POLY-N) POLYSET CO INC
 COUNTRY COUNT: 74

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 9833645	A1	19980806	(199837)*	EN	67[0]		<--
AU 9732352	A	19980825	(199903)	EN			<--
US 5863970	A	19990126	(199911)	EN			<--
JP 2001519838	T	20011023	(200202)	JA	66		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9833645	A1	WO 1997-US10528	19970616
US 5863970	A CIP of	US 1995-568273	19951206
US 5863970	A	US 1997-794819	19970204
AU 9732352	A	AU 1997-32352	19970616
JP 2001519838	T	WO 1997-US10528	19970616
JP 2001519838	T	JP 1998-532849	19970616

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9732352	A Based on	WO 9833645 A
JP 2001519838	T Based on	WO 9833645 A

PRIORITY APPLN. INFO: US 1997-794819 19970204
US 1995-568273 19951206

INT. PATENT CLASSIF.:

MAIN: C08L063-00
 IPC RECLASSIF.: C08G0059-00 [I,C]; C08G0059-20 [I,A]; C08G0059-22 [I,A];
 C08G0059-30 [I,A]; C08G0059-32 [I,A]; C08G0059-38 [I,A];
 C08G0059-68 [I,A]; C08K0003-00 [I,C]; C08K0003-08 [I,A];
 C08K0005-00 [I,A]; C08K0005-00 [I,C]; C08K0005-09 [I,A];
 C08K0005-5435 [I,A]; C08L0063-00 [I,A]; C08L0063-00 [I,C]
 ; C09J0163-00 [I,A]; C09J0163-00 [I,C]; C09J0201-00 [I,A]
 ; C09J0201-00 [I,C]; H01L0021-02 [I,C]; H01L0021-52 [I,A]
 ; H01L0021-58 [I,A]; H01L0023-28 [I,C]; H01L0023-29 [I,A]
 ; H01L0023-31 [I,A]; H01L0023-48 [I,C]; H01L0023-485
 [I,A]
 ECLA: C08G0059-22B; C08G0059-30F; C08G0059-32F; C08G0059-38;
 C08G0059-68; C08K0003-08+L63/00; C08K0005-00P2+L63/00;
 C08K0005-5435+L63/00; C08L0063-00; C09J0163-00+F;
 H01L0021-58; H01L0023-29P; H01L0023-485B
 USCLASS NCLM: 523/434.000
 NCLS: 257/E21.505; 257/E23.021; 257/E23.119; 523/427.000;
 525/481.000; 525/484.000; 525/488.000; 525/525.000
 JAP. PATENT CLASSIF.:
 MAIN/SEC.: C08G0059-20; C08G0059-68; C08K0005-09; C08L0063-00 C;
 C09J0201-00; H01L0021-52 E; H01L0023-30 R
 FTERM CLASSIF.: 4J002; 4J036; 4J040; 4M109; 5F047; 4M109/AA01;
 4J036/AA04; 4J036/AD05; 4J036/AD08; 4J036/AF06;
 4J036/AF08; 4J036/AJ01; 4J036/AJ02; 4J036/AJ03;
 4J036/AJ07; 4J036/AJ09; 4J036/AJ10; 4J036/AJ21;
 4J036/AK03; 4M109/BA04; 5F047/BA34; 5F047/BA53;
 5F047/BA54; 5F047/BB16; 4J040/CA05.2; 4M109/CA05;
 4J040/CA07.2; 4J002/CD01.X; 4J002/CD02.X; 4J002/CD05.X;
 4J002/CD06.X; 4J002/CD12.X; 4J002/CD16.X; 4J002/CP05.W;
 4M109/EA03; 4M109/EA04; 4M109/EA10; 4M109/EB07;
 4M109/EB08; 4J002/EB11.6; 4M109/EB12; 4M109/EB15;
 4M109/EB17; 4M109/EC04; 4J040/EC06.1; 4J040/EC06.2;
 4J040/EC07.1; 4J040/EC07.2; 4M109/EC09; 4J040/EC11.1;
 4J040/EC11.2; 4J040/EC15.1; 4J040/EC15.2; 4J040/EC21.2;
 4J040/EC24.1; 4J040/EC24.2; 4J040/EC26.1; 4J040/EC26.2;
 4J040/EC28.1; 4J040/EC28.2; 4J040/EK11.1; 4J040/EK11.2;
 4J036/FA02; 4J036/FA03; 4J036/FA04; 4J036/FA05;
 4J036/FA13; 5F047/FA51; 5F047/FA55; 5F047/FA56;
 4J036/FB03; 4J036/FB05; 4J002/FD01.0; 4J002/FD07.0;
 4J002/FD14.6; 4J002/FD15.0; 4J002/FD20.0; 4J040/GA07;
 4J036/GA11; 4J036/GA13; 4J036/GA17; 4J036/GA24;
 4J036/GA28; 4J002/GJ01; 4J002/GQ05; 4J040/HA06.6;
 4J036/HA12; 4J040/HA13.6; 4J040/HA20.6; 4J040/HA25.6;
 4J040/HA30.6; 4J040/HA35.6; 4J040/HB16; 4J040/HB24;
 4J040/HB25; 4J040/HB27; 4J040/HD21; 4J040/HD32;
 4J040/HD35; 4J040/HD37; 4J040/HD38; 4J040/HD43;
 4J036/JA06; 4J040/KA02; 4J040/KA03; 4J040/KA32;
 4J040/KA42; 4J040/LA06; 4J040/LA09; 4J040/NA20

BASIC ABSTRACT:

WO 1998033645 A1 UPAB: 20060114

A resin composition comprises 5-100 weight% of a base resin and 0-95 weight% of a particulate filler. The base resin comprises: (a) 10-95 pts.weight of a cycloaliphatic epoxy functional siloxane; (b) 5-90 pts.weight of a non-silicon-containing di-, tri- or poly-epoxy resin or mixture of such resins; (c) 0.1-3 pts.weight of an iodonium salt of formula (I); and (d) 0-3 pts.weight of a copper compound selected from copper stearate, copper naphthenate, copper acetate, copper acetylacetonate, and copper 1,3-pentadienoate.

In (I), M = boron, phosphorus, antimony; X = halogen or C6F5; n = 4 or 6; and R = H, 1-20C alkyl, 1-20C alkoxy, 1-20C hydroxyalkoxy, halogen, nitro.

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Also claimed is a method for attaching a die to a substrate.

USE - The composition is useful as die-attach adhesives (die bonding agents), polymer bumps, underfill or glob-top encapsulants.

ADVANTAGE - The compositions have chemical resistance, electrical properties, thermal stability and processability. MANUAL CODE: CPI: A05-A01E3; A06-A00E1; A12-A05; A12-R08; E05-E01;

E10-A01; G03-B01; G03-B02E2; G04-B02; L03-H04E8;

L04-C17D; L04-C20A

EPI: U11-A07; U11-D03B3; X12-E02B

Member(0003)

ABEQ US 5863970 A UPAB 20060114

A resin composition comprises 5-100 wt.% of a base resin and 0-95 wt.% of a particulate filler. The base resin comprises: (a) 10-95 pts.wt. of a cycloaliphatic epoxy functional siloxane; (b) 5-90 pts.wt. of a non-silicon-containing di-, tri- or poly-epoxy resin or mixture of such resins; (c) 0.1-3 pts.wt. of an iodonium salt of formula (I); and (d) 0-3 pts.wt. of a copper compound selected from copper stearate, copper naphthenate, copper acetate, copper acetylacetonate, and copper 1,3-pentadienoate.

In (I), M = boron, phosphorus, antimony; X = halogen or C6F5; n = 4 or 6; and R = H, 1-20C alkyl, 1-20C alkoxy, 1-20C hydroxyalkoxy, halogen, nitro. Also claimed is a method for attaching a die to a substrate.

USE - The composition is useful as die-attach adhesives (die bonding agents), polymer bumps, underfill or glob-top encapsulants.

ADVANTAGE - The compositions have chemical resistance, electrical properties, thermal stability and processability.

L123 ANSWER 38 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
ACCESSION NUMBER: 1998-077400 [199807] WPIX
CROSS REFERENCE: 1998-053586; 2009-J43010
TITLE: Light especially white light emitting semiconductor device - has luminescence conversion element for wavelength conversion of initial emitted radiation
DERWENT CLASS: A85; L03; P81; P85; Q25; Q71; U11; U12; U14; V07; W05; W06; X22; X26
INVENTOR: ALEXANDRA D; DEBRAI A; DEBRAY A; DEBRUN A; HEN K; HOEHN K; HOHN K; HONE K; JURGEN S; KLAUS H; PETER S; RALF S; REEH U; SCHLOTERL P; SCHLOTTER P; SCHMID R; SCHMIDT R; SCHMITE P; SCHMITT R; SCHNEIDER J; STATH N; WAITL G; GUENTER W; GUNTER W; JUERGEN S; NORBERT S; ROLF S; ULRIKE R
PATENT ASSIGNEE: (SIEI-C) OSRAM GMBH; (SIEI-C) OSRAM MELCO KK; (SIEI-C) OSRAM OPTO SEMICONDUCTORS GMBH; (SIEI-C) OSRAM OPTO SEMICONDUCTORS GMBH&CO OHG; (SIEI-C) SIEMENS AG; (DEBR-I) DEBRAY A; (HOEH-I) HOEHN K; (HOHN-I) HOHN K; (REEH-I) REEH U; (SCHL-I) SCHLOTTER P; (SCHM-I) SCHMIDT R; (SCHN-I) SCHNEIDER J; (STAT-I) STATH N; (WAIT-I) WAITL G; (SIEI-C) OSRAM OPTO SEMICONDUCTORS GMBH & CO OHG
COUNTRY COUNT: 22

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 9750132	A1	19971231	(199807)*	DE	41[14]	<--
DE 19638667	A1	19980402	(199819)	DE	14[12]	<--
EP 862794	A1	19980909	(199840)	DE		<--
JP 11500584	T	19990112	(199912)	JA	23	<--

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EP 907969	A1	19990414	(199919)	DE		<--
BR 9706787	A	19990413	(199921)	PT		<--
CN 1207206	A	19990203	(199924)	ZH		<--
BR 9709998	A	19990810	(199953)	PT		<--
CN 1228873	A	19990915	(200001)	ZH		<--
US 6066861	A	20000523	(200032)	# EN		<--
JP 2000236112	A	20000829	(200046)	JA	8	<--
KR 99071493	A	19990927	(200048)	KO	[8]	<--
JP 2000512806	T	20000926	(200051)	JA	35	<--
DE 19655185	A1	20001012	(200052)	DE		<--
DE 29724284	U1	20000921	(200055)	DE		<--
DE 29724382	U1	20001221	(200106)	DE		<--
KR 2000022539	A	20000425	(200107)	KO	[14]	<--
US 20010000622	A1	20010503	(200126)	EN		<--
DE 19638667	C2	20010517	(200128)	DE		<--
US 20010002049	A1	20010531	(200131)	EN		<--
US 6245259	B1	20010612	(200135)	EN		<--
US 6277301	B1	20010821	(200150)	EN		<--
US 20010028053	A1	20011011	(200162)	EN		<--
US 20010030326	A1	20011018	(200166)	EN		<--
US 20010045647	A1	20011129	(200202)	EN		<--
DE 29724543	U1	20020228	(200223)	DE		<--
DE 29724582	U1	20020704	(200252)	DE		<--
EP 1221724	A2	20020710	(200253)	DE		<--
JP 2002208733	A	20020726	(200264)	JA	9	<--
JP 2002232002	A	20020816	(200269)	JA	9	<--
JP 2002249769	A	20020906	(200274)	JA	10	<--
EP 862794	B1	20021127	(200279)	DE		<--
JP 2002317177	A	20021031	(200304)	JA	9	<--
JP 2002317178	A	20021031	(200304)	JA	10	<--
DE 59708820	G	20030109	(200305)	DE		<--
JP 3364229	B2	20030108	(200306)	JA	9	<--
US 6576930	B2	20030610	(200340)	EN		<--
US 6592780	B2	20030715	(200348)	EN		<--
US 6613247	B1	20030902	(200359)	EN		<--
JP 2004031988	A	20040129	(200410)	JA	17	<--
JP 2004031989	A	20040129	(200410)	JA	18	<--
JP 2004048069	A	20040212	(200413)	JA	17	<--
US 20040016908	A1	20040129	(200413)	EN		<--
JP 2004111981	A	20040408	(200425)	JA	18	<--
US 20040084687	A1	20040506	(200430)	EN		<--
EP 907969	B1	20040526	(200435)	DE		<--
DE 59711671	G	20040701	(200443)	DE		<--
EP 1434279	A2	20040630	(200443)	DE		<--
EP 1439586	A2	20040721	(200447)	DE		<--
EP 1441395	A2	20040728	(200449)	DE		<--
EP 1441396	A2	20040728	(200449)	DE		<--
EP 1441397	A2	20040728	(200449)	DE		<--
CN 1515623	A	20040728	(200469)	ZH		<--
DE 29724847	U1	20041104	(200472)	DE		<--
DE 29724848	U1	20041104	(200472)	DE		<--
DE 29724849	U1	20041104	(200472)	DE		<--
US 6812500	B2	20041102	(200472)	EN		<--
CN 1534802	A	20041006	(200506)	ZH		<--
CN 1534803	A	20041006	(200506)	ZH		<--
CN 1558454	A	20041229	(200523)	ZH		<--
CN 1558455	A	20041229	(200523)	ZH		<--
CN 1560931	A	20050105	(200525)	ZH		<--
DE 29724849	U9	20050421	(200527)	DE		<--
KR 2004111696	A	20041231	(200528)	KO		<--

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KR 2004111697	A	20041231 (200528)	KO	<--
KR 2004111698	A	20041231 (200528)	KO	<--
KR 2004111699	A	20041231 (200528)	KO	<--
KR 2004111700	A	20041231 (200528)	KO	<--
KR 2004111701	A	20041231 (200528)	KO	<--
US 20050127385	A1	20050616 (200540)	EN	
US 20050161694	A1	20050728 (200550)	EN	
JP 2005252293	A	20050915 (200560)	JA	17
JP 2005260256	A	20050922 (200562)	JA	17
JP 2005286342	A	20051013 (200567)	JA	18
US 20050231953	A1	20051020 (200569)	EN	
CN 1567608	A	20050119 (200572)	ZH	
CN 1156029	C	20040630 (200626)	ZH	<--
JP 3773541	B2	20060510 (200635)	JA	14
CN 1722485	A	20060118 (200639)	ZH	
CN 1722486	A	20060118 (200639)	ZH	
CN 1738067	A	20060222 (200639)	ZH	
KR 2005053797	A	20050608 (200641)	KO	
KR 2005053798	A	20050608 (200641)	KO	
KR 2005084534	A	20050826 (200644)	KO	
KR 2005084535	A	20050826 (200644)	KO	
US 7078732	B1	20060718 (200648)	EN	
JP 3824917	B2	20060920 (200662)	JA	12
US 7126162	B2	20061024 (200670)	EN	
CN 1264228	C	20060712 (200678)	ZH	
KR 2006079262	A	20060705 (200681)	KO	
KR 2006079263	A	20060705 (200681)	KO	
US 7151283	B2	20061219 (200702)	EN	
JP 3866091	B2	20070110 (200703)	JA	14
JP 3866092	B2	20070110 (200703)	JA	12
KR 537349	B1	20060228 (200703)	KO	
KR 2006097745	A	20060914 (200705)	KO	
CN 1273537	C	20060906 (200706)	ZH	
KR 629544	B1	20060927 (200715)	KO	
JP 2007081413	A	20070329 (200725)	JA	18
CN 1893136	A	20070110 (200731)	ZH	
CN 1905226	A	20070131 (200735)	ZH	
CN 1913183	A	20070214 (200740)	ZH	
US 7235189	B2	20070626 (200742)	EN	
CN 1917240	A	20070221 (200743)	ZH	
KR 643442	B1	20061110 (200757)	KO	
US 20070216281	A1	20070920 (200763)	EN	
KR 662955	B1	20061228 (200765)	KO	
KR 662956	B1	20061228 (200765)	KO	
US 7276736	B2	20071002 (200765)	EN	
CN 1983651	A	20070620 (200774)	ZH	
JP 4001703	B2	20071031 (200778)	JA	13
JP 4001892	B2	20071031 (200778)	JA	18
JP 4001893	B2	20071031 (200778)	JA	17
KR 2007068489	A	20070629 (200803)	KO	
KR 2007070262	A	20070703 (200805)	KO	
JP 2008060595	A	20080313 (200820)	JA	18
US 7345317	B2	20080318 (200822)	EN	
CN 101081909	A	20071205 (200827)	ZH	
CN 101081910	A	20071205 (200827)	ZH	
KR 702740	B1	20070403 (200830)	KO	
JP 2008103756	A	20080501 (200832)	JA	14
CN 100367521	C	20080206 (200833)	ZH	
KR 734122	B1	20070629 (200833)	KO	
KR 751692	B1	20070823 (200837)	KO	

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CN 1881637	A	20061220	(200840)	ZH	
US 20080149958	A1	20080626	(200844)	EN	
KR 808749	B1	20080229	(200861)	KO	
JP 4233252	B2	20090304	(200920)	JA	13
JP 2009065194	A	20090326	(200922)	JA	16
KR 816596	B1	20081015	(200922)	KO	
KR 875010	B1	20081219	(200922)	KO	
KR 808752	B1	20080229	(200924)	KO	
JP 2009071336	A	20090402	(200925)	JA	13
KR 2008086557	A	20080925	(200934)	KO	
JP 4278479	B2	20090617	(200940)	JA	16
JP 4280598	B2	20090617	(200940)	JA	16
CN 100433382	C	20081112	(200941)	ZH	
CN 100435369	C	20081119	(200941)	ZH	
JP 4286104	B2	20090624	(200942)	JA	16
CN 100442555	C	20081210	(200944)	ZH	
JP 4308620	B2	20090805	(200951)	JA	16
KR 908170	B1	20090716	(200956)	KO	
JP 4334497	B2	20090930	(200964)	JA	17
CN 100492681	C	20090527	(200971)	ZH	
CN 100492682	C	20090527	(200971)	ZH	
CN 100492683	C	20090527	(200971)	ZH	
CN 100502066	C	20090617	(200971)	ZH	
US 7629621	B2	20091208	(200981)	EN	
EP 1434279	B1	20091216	(200982)	DE	
CN 100514684	C	20090715	(201001)	ZH	
CN 100557833	C	20091104	(201002)	ZH	
JP 4388940	B2	20091224	(201002)	JA	16
CN 100565945	C	20091202	(201004)	ZH	
DE 59713024	G	20100128	(201009)	DE	
US 20100044739	A1	20100225	(201016)	EN	
US 7709852	B2	20100504	(201030)	EN	
BR 9709998	B1	20100420	(201033)	PT	
US 20100176344	A1	20100715	(201047)	EN	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9750132	A1	WO 1997-DE1337	19970626
DE 19638667	A1	DE 1996-19638667	19960920
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US 20080149958 A1	Cont of	US 7078732 B
US 7629621 B2	Cont of	US 7078732 B
US 20100044739 A1	Cont of	US 7078732 B

10/596,007

US 7345317 B2	Cont of	US 7126162 B
US 20080149958 A1	Cont of	US 7126162 B
US 7629621 B2	Cont of	US 7126162 B
US 20100044739 A1	Cont of	US 7126162 B
US 7709852 B2	Cont of	US 7276736 B
US 20080149958 A1	Cont of	US 7345317 B
US 7629621 B2	Cont of	US 7345317 B
US 20100044739 A1	Cont of	US 7345317 B
US 20100044739 A1	Cont of	US 7629621 B
EP 907969 A1	Based on	WO 9750132 A
BR 9709998 A	Based on	WO 9750132 A
JP 2000512806 T	Based on	WO 9750132 A
KR 2000022539 A	Based on	WO 9750132 A
EP 907969 B1	Based on	WO 9750132 A
DE 59711671 G	Based on	WO 9750132 A
JP 3773541 B2	Based on	WO 9750132 A
KR 2005053797 A	Based on	WO 9750132 A
KR 2005053798 A	Based on	WO 9750132 A
KR 2006079262 A	Based on	WO 9750132 A
KR 2006079263 A	Based on	WO 9750132 A
KR 537349 B1	Based on	WO 9750132 A
KR 629544 B1	Based on	WO 9750132 A
KR 643442 B1	Based on	WO 9750132 A
KR 662955 B1	Based on	WO 9750132 A
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KR 702740 B1	Based on	WO 9750132 A
KR 734122 B1	Based on	WO 9750132 A
KR 751692 B1	Based on	WO 9750132 A
KR 808749 B1	Based on	WO 9750132 A
EP 862794 A1	Based on	WO 9812757 A
JP 11500584 T	Based on	WO 9812757 A
BR 9706787 A	Based on	WO 9812757 A
KR 99071493 A	Based on	WO 9812757 A
EP 862794 B1	Based on	WO 9812757 A
DE 59708820 G	Based on	WO 9812757 A
JP 3364229 B2	Based on	WO 9812757 A
KR 2005084534 A	Based on	WO 9812757 A
KR 2005084535 A	Based on	WO 9812757 A
KR 2006097745 A	Based on	WO 9812757 A
KR 2007068489 A	Based on	WO 9812757 A
KR 2007070262 A	Based on	WO 9812757 A
KR 816596 B1	Based on	WO 9812757 A
KR 875010 B1	Based on	WO 9812757 A
KR 808752 B1	Based on	WO 9812757 A
KR 2008086557 A	Based on	WO 9812757 A
KR 908170 B1	Based on	WO 9812757 A
US 20100176344 A1	Div Ex	US 6066861 A
US 20100176344 A1	Cont of	US 6245259 B
US 20100176344 A1	Div Ex	US 6277301 B
US 20100176344 A1	Cont of	US 6592780 B
US 20100176344 A1	Cont of	US 7276736 B
US 20100176344 A1	Cont of	US 7709852 B

PRIORITY APPLN. INFO: DE 1996-19638667 19960920
DE 1996-19625622 19960626
DE 1996-19655185 19960920
US 1998-82205 19980520

INT. PATENT CLASSIF.:
 MAIN: H01L033-00
 SECONDARY: H01S003-19; H01S005-32

IPC ORIGINAL: C08K0003-00 [I,A]; C08K0003-00 [I,A]; C08K0003-00 [I,C];
 C08K0003-00 [I,C]; C08K0009-00 [I,A]; C08K0009-00 [I,C];
 C08L0063-00 [I,A]; C08L0063-00 [I,A]; C08L0063-00 [I,C];
 C08L0063-00 [I,C]; C09K0011-00 [I,A]; C09K0011-00 [I,A];
 C09K0011-00 [I,C]; C09K0011-02 [I,A]; C09K0011-02 [I,A];
 C09K0011-02 [I,C]; C09K0011-02 [I,C]; C09K0011-08 [I,A];
 C09K0011-56 [I,A]; C09K0011-56 [I,C]; C09K0011-62 [I,A];
 C09K0011-64 [I,A]; C09K0011-64 [I,C]; C09K0011-77 [I,A];
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 C09K0011-79 [I,A]; C09K0011-80 [I,A]; C09K0011-80 [I,A];
 F21V0009-00 [I,C]; F21V0009-08 [I,A]; F21Y0101-02 [N,A];
 G02F0001-13 [I,C]; G02F0001-13357 [I,A]; H01J0029-10
 [I,A]; H01J0029-10 [I,C]; H01L0023-18 [I,A]; H01L0023-28
 [I,C]; H01L0023-29 [I,A]; H01L0023-31 [I,A]; H01L0033-00
 [I,A]; H01L0033-00 [I,C]; H01L0051-05 [I,C]; H01L0051-30
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 [I,C]; H01L0033-00 [I,A]; H01L0033-00 [I,C]; H01S0005-00
 [I,C]

IPC RECLASSIF.: B29C0039-02 [I,A]; B29C0039-02 [I,C]; B29K0105-16 [N,A];
 B29K0063-00 [N,A]; C08K0003-00 [I,C]; C08K0003-22 [I,A];
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 F21V0009-16 [I,A]; F21Y0101-02 [N,A]; G02F0001-13 [I,C];
 G02F0001-13357 [I,A]; H01L0023-28 [I,C]; H01L0023-29
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 [N,A]; H05B0033-04 [I,A]; H05B0033-04 [I,C]; H05B0033-12
 [I,A]; H05B0033-12 [I,C]

ECLA: C09K0011-77M2D; C09K0011-77M6; C09K0011-77P2D;
 C09K0011-77P6; C09K0011-77S2; C09K0011-77S2H;
 C09K0011-77S6; H01L0033-00B2B; H01L0033-00B3B;
 H01L0033-48C2; H01L0033-50

ICO: T01L0033:00B6D; T01L0033:56

USCLASS NCLM: 252/301.360; 257/098.000; 257/100.000; 257/103.000;
 257/734.000; 313/468.000; 362/260.000

NCLS: 252/301.40R; 257/081.000; 257/089.000; 257/098.000;
 257/099.000; 257/100.000; 257/E33.057; 257/E33.061;
 257/E33.074; 313/467.000; 313/468.000; 313/486.000;
 313/487.000; 313/503.000; 362/293.000; 362/800.000

JAP. PATENT CLASSIF.:
 MAIN/SEC.:

B29C0039-02; C08K0003-22; C08K0003-30; C08K0007-00;
 C08K0009-00; C08L0063-00 C; C09K0011-00 D; C09K0011-00 F;
 C09K0011-08 G; C09K0011-08 J; C09K0011-56 (CPM);
 C09K0011-62 (CPC); C09K0011-62; C09K0011-64; C09K0011-79
 (CPP); C09K0011-79 (CPR); C09K0011-79 (CQF); C09K0011-79;
 C09K0011-80 (CPB); C09K0011-80 (CPC); C09K0011-80 (CPM);
 C09K0011-80 (CPN); C09K0011-80 (CPP); C09K0011-80 (CPR);
 C09K0011-80 (CQF); C09K0011-80 (CQG); C09K0011-80;

10/596,007

F21V0005-04; F21V0005-04 Z; F21V0009-08 100; F21V0009-08
B; F21V0009-16; G02F0001-13357; H01L0023-30 B;
H01L0023-30 F; H01L0033-00 186; H01L0033-00 188;
H01L0033-00 410; H01L0033-00 422; H01L0033-00 424;
H01L0033-00 432; H01L0033-00 440; H01L0033-00 C;
H01L0033-00 N; H05B0033-04; H05B0033-12 E; H05B0033-12 Z
H01L0033-00 410; H01L0033-00 N
MAIN:
SECONDARY: C09K0011-00 D; C09K0011-08 G; C09K0011-08 J; C09K0011-56
(CPM); C09K0011-62 (CPC); C09K0011-62; C09K0011-64;
C09K0011-79 (CPR); C09K0011-79 (CQF); C09K0011-80 (CPM);
C09K0011-80 (CPN); C09K0011-80 (CPP); C09K0011-80 (CPR);
C09K0011-80 (CQG); H01L0033-00 186; H01L0033-00 C
INDEX: B29K0105:16; B29K0063:00; F21Y0101:02
FTerm CLASSIF.: 2H091; 2H191; 3K007; 3K044; 3K107; 4F204; 4H001; 4J002;
4M109; 5F041; 4M109/AA01; 4M109/AA02; 5F041/AA05;
5F041/AA11; 5F041/AA12; 5F041/AA14; 5F041/AA31;
5F041/AA32; 5F041/AA34; 4F204/AA39; 5F041/AA42;
3K007/AB01; 3K007/AB02; 3K007/AB04; 4F204/AB12;
3K007/AB13; 3K007/AB14; 4F204/AB16; 3K007/AB18;
4F204/AB24; 4F204/AB27; 4F204/AD03; 4F204/AD04;
4F204/AD35; 4F204/AH37; 4M109/BA01; 3K007/BB01;
3K007/BB02; 3K007/BB06; 3K007/BB07; 4M109/CA01;
4H001/CA02; 4M109/CA02; 3K007/CA03; 4H001/CA04;
4M109/CA04; 5F041/CA04; 4H001/CA05; 5F041/CA12;
4M109/CA21; 5F041/CA22; 5F041/CA33; 5F041/CA34;
5F041/CA40; 5F041/CA46; 5F041/CB31; 5F041/CB36;
3K007/CC05; 4H001/CC13; 4H001/CC15; 4J002/CD00.1;
4J002/CD03.1; 4J002/CD05.1; 4H001/CF01; 4H001/CF02;
5F041/DA01; 5F041/DA02; 5F041/DA03; 3K007/DA04;
4M109/DA07; 5F041/DA07; 5F041/DA12; 5F041/DA15;
5F041/DA16; 5F041/DA17; 5F041/DA18; 5F041/DA19;
5F041/DA20; 5F041/DA25; 5F041/DA26; 5F041/DA34;
5F041/DA35; 5F041/DA36; 5F041/DA43; 5F041/DA44;
5F041/DA45; 5F041/DA46; 5F041/DA47; 5F041/DA55;
5F041/DA56; 5F041/DA57; 5F041/DA58; 5F041/DA59;
5F041/DA61; 5F041/DA74; 5F041/DA77; 5F041/DA78;
3K007/DB00; 4J002/DB00.6; 5F041/DB01; 5F041/DB02;
5F041/DB03; 5F041/DB09; 3K007/DC00; 3K007/DC03;
3K007/DC04; 3K007/DC05; 5F041/DC23; 4J002/DE18.6;
4J002/DG02.6; 4J002/DJ00.6; 3K007/EA01; 4M109/EA02;
3K007/EA03; 4F204/EA03; 4M109/EA03; 4F204/EA04;
4F204/EA06; 4F204/EA07; 3K007/EB00; 4F204/EB01;
4M109/EB08; 4M109/EB09; 4F204/EB11; 4M109/EB18;
4M109/EC11; 4F204/EE02; 5F041/EE11; 4M109/EE12;
4M109/EE13; 4M109/EE15; 5F041/EE16; 4F204/EE21;
5F041/EE22; 5F041/EE23; 5F041/EE25; 4J002/FA01.6;
3K007/FA02; 3K007/FA03; 4J002/FA08.6; 2H091/FA41.Z;
2H091/FA44.Z; 2H091/FA45.Z; 2H191/FA81.Z; 2H191/FA84.Z;
2H191/FA85.Z; 4J002/FB01.6; 4J002/FB08.6; 4J002/FB09.6;
4J002/FB26.6; 4J002/FD09.6; 4J002/FD20.6; 4J002/FD20.7;
5F041/FF01; 5F041/FF06; 5F041/FF11; 4M109/GA01;
4J002/GP00; 4J002/GQ00; 4J002/GQ05; 2H091/LA30;
2H191/LA40; 4H001/XA07; 4H001/XA08; 4H001/XA13;
4H001/XA14; 4H001/XA16; 4H001/XA20; 4H001/XA21;
4H001/XA31; 4H001/XA38; 4H001/XA39; 4H001/XA49;
4H001/XA57; 4H001/XA64; 4H001/XA71; 4H001/YA00;
4H001/YA24; 4H001/YA58; 4H001/YA60; 4H001/YA63;
4H001/YA65; 4H001/YA68; 4H001/YA90
BASIC ABSTRACT:
WO 1997050132 A1 UPAB: 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics. MANUAL CODE: CPI: A12-E07C; A12-E11A; L03-H05; L04-E03

EPI: U11-D01B1; U11-D01C1; U12-A01A4; U12-A01A6;
U14-K01A4C; V07-K04; W05-E05B; W06-B01C5; X22-B03; X22-E;
X26-H

Member(0002)

ABEQ DE 19638667 A1 UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

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Member(0005)

ABEQ JP 11500584 W UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of

organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

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Member(0011)

ABEQ US 6066861 A UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics.

Member(0012)

ABEQ JP 2000236112 A UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the

operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics.

Member(0014)

ABEQ JP 2000512806 W UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics.

Member(0015)

ABEQ DE 19655185 A1 UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics.

Member(0016)

ABEQ DE 29724284 U1 UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green

region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics.

Member(0017)

ABEQ DE 29724382 U1 UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics.

Member(0019)

ABEQ US 20010000622 A1 UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics.

Member (0020)

ABEQ DE 19638667 C2 UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics.

Member (0021)

ABEQ US 20010002049 A1 UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics.

Member(0022)

ABEQ US 6245259 B1 UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics.

Member(0023)

ABEQ US 6277301 B1 UPAB 20060201

A light-emitting semiconductor device has (a) a semiconductor body (1) with a layer sequence (7) capable of emitting electromagnetic radiation of a first wavelength range in the UV, blue and/or green region; and (b) a luminescence conversion element which converts radiation of the first wavelength range to radiation of one or more second, different wavelength ranges so that the device emits mixed radiation in the first and second wavelength ranges. Preferably, the luminescence conversion element consists of organic dye molecules in a plastic matrix preferably of silicone, thermoplastic or thermosetting material, especially an epoxide resin or polymethyl methacrylate matrix, and/or an inorganic phosphor (preferably a Ce-doped garnet, especially Ce:YAG) in an epoxide resin or low melting point inorganic glass matrix.

USE - In a full colour capable LED display, for interior lighting of aircraft cabins or for lighting displays especially LCDs (claimed), as well as for lighting vehicle interiors and instrument panels.

ADVANTAGE - The device emits a homogeneous mixed colour (especially white) light, has an emission colour independent of the operating current intensity and thus fluctuating ambient temperatures, requires only one drive voltage and thus one drive circuit so that costs are reduced, has low power consumption and can be mass produced with reproducible device characteristics.

L123 ANSWER 39 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN

ACCESSION NUMBER: 1997-283087 [199726] WPIX

DOC. NO. CPI: C1997-091152 [199726]

TITLE: Vulcanisable elastomeric cpd. preparation for the mfg. of vehicle tyres - by pre-blending poly:di:methyl siloxane* or polyisoprene granular particle elastomers with vulcanising agent, for improved inter-dispersion

DERWENT CLASS: A12; A17; A26; A31; A95; E19; Q11

INVENTOR: BERNIER R J N; SMITH G G

10/596,007

PATENT ASSIGNEE: (UNIC-C) UNION CARBIDE CHEM & PLASTICS CO INC; (UNIC-C)
UNION CARBIDE CHEM & PLASTICS TECHNOLOGY
COUNTRY COUNT: 18

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
EP 775719	A2	19970528	(199726)*	EN	8[0]		<--
CA 2190302	A	19970523	(199738)	EN			<--
ZA 9609736	A	19971126	(199802)	EN	25		<--
JP 10060178	A	19980303	(199819)	JA	31		<--
KR 97027155	A	19970624	(199826)	KO			<--
BR 9605652	A	19980818	(199839)#	PT			<--
MX 9605730	A1	19971101	(199902)	ES			<--
CN 1195672	A	19981014	(199909)	ZH			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 775719 A2		EP 1996-308442	19961121
CA 2190302 A		CA 1996-2190302	19961114
ZA 9609736 A		ZA 1996-9736	19961120
BR 9605652 A		BR 1996-5652	19961121
CN 1195672 A		CN 1996-123373	19961121
JP 10060178 A		JP 1996-346432	19961121
KR 97027155 A		KR 1996-55964	19961121
MX 9605730 A1		MX 1996-5730	19961121

PRIORITY APPLN. INFO: US 1996-724888 19961003
US 1995-7448P 19951122
BR 1996-5652 19961121

INT. PATENT CLASSIF.:

MAIN: C08J003-20

IPC RECLASSIF.: B60C [I,S]; C08J [I,S]; C08J0003-00 [I,A]; C08J0003-00 [I,C]; C08J0003-20 [I,A]; C08J0003-20 [I,C]; C08J0003-24 [I,A]; C08J0003-24 [I,C]; C08K0003-00 [I,C]; C08K0003-04 [I,A]; C08K0003-36 [I,A]; C08L [I,S]; C08L0021-00 [I,A]; C08L0021-00 [I,A]; C08L0021-00 [I,C]; C08L0021-00 [I,C]; C08L0023-00 [I,C]; C08L0023-16 [I,A]

ECLA: C08J0003-00B+L21/00; C08J0003-20+L21/00; C08L0021-00+B2B

JAP. PATENT CLASSIF.:

MAIN/SEC.: C08K0003-04; C08K0003-36; C08L0021-00; C08L0023-16

INDEX: C08L0101:00

FTERM CLASSIF.:

4J002; 4J002/AC02.1; 4J002/AC03.1; 4J002/AC06.1;
4J002/AC07.1; 4J002/AC08.1; 4J002/AC09.1; 4J002/AC12.1;
4J002/AE00.2; 4J002/AE04.2; 4J002/AF00.2; 4J002/AF02.2;
4J002/BA01.2; 4J002/BB04.1; 4J002/BB05.1; 4J002/BB06.1;
4J002/BB07.1; 4J002/BB09.1; 4J002/BB10.1; 4J002/BB15.1;
4J002/BB18.1; 4J002/BB24.1; 4J002/BC03.1; 4J002/BC03.2;
4J002/BC09.2; 4J002/BC11.1; 4J002/BK00.2; 4J002/BN15.1;
4J002/CC03.2; 4J002/CD16.2; 4J002/CP03.1; 4J002/DA03.7;
4J002/DE07.7; 4J002/DE08.7; 4J002/DE10.7; 4J002/DE11.7;
4J002/DE13.7; 4J002/DE14.7; 4J002/DE23.7; 4J002/DG05.7;
4J002/DJ00.7; 4J002/DJ01.7; 4J002/DJ03.7; 4J002/DJ04.7;
4J002/EC04.7; 4J002/EG01.7; 4J002/EH02.7; 4J002/EH04.7;
4J002/EH09.7; 4J002/EJ03.7; 4J002/EN06.7; 4J002/EN10.7;
4J002/ER02.7; 4J002/EU07.7; 4J002/EU18.7; 4J002/EU19.7;
4J002/EV03.7; 4J002/EV06.7; 4J002/EV12.7; 4J002/EV13.7;

4J002/EV16.7; 4J002/EV29.7; 4J002/EV32.7; 4J002/EV34.7;
 4J002/EW04.7; 4J002/FD01.2; 4J002/FD01.7; 4J002/FD02.2;
 4J002/FD02.7; 4J002/FD07.2; 4J002/FD07.7; 4J002/FD14.6;
 4J002/GN01

BASIC ABSTRACT:

EP 775719 A2 UPAB: 20060113

A process for preparing vulcanisable elastomeric compounds comprises:

- (a) combining granular elastomers where each elastomer comprises particles having an average dia. of 5 mm or smaller;
- (b) optionally adding additives;
- (c) adding vulcanising agent(s); and
- (d) masticating to produce a vulcanisable elastomeric compound.

Step (a) is performed by preblending or co-feeding granular elastomers.

Also claimed are:

- (i) an elastomeric article prepared by shaping and vulcanising an elastomeric cpd. prepared by a process as above;
- (ii) a tyre sidewall prepared by shaping and vulcanising vulcanisable elastomeric compounds;
- (iii) a process (I) for interfacial co-curing of shaped elastomeric bodies in mutual contact; and
- (iv) a tyre produced by the above process of (iii).

USE - Useful for the manufacture of strip stock for the tread, sidewall and bead filler components of a pneumatic tyre; or sheet stock for the air retention inner liner and carcass and circumferential belt components of a vehicle tyre.

ADVANTAGE - The elastomers can be blended to a high degree of inter-dispersion in a short time without degradation. - CLAIMED PROCESS - The body co-curing comprises: - (i) forming the vulcanisable elastomeric cpd. into a shaped elastomeric body; - (ii) assembling the shaped elastomeric body so that it contacts another shaped elastomeric body comprising a highly unsaturated rubber to produce an assembly; and - (iii) vulcanising the assembly under conditions to effect crosslinking across an interface between the shaped elastomeric bodies. - PREFERRED PROCESS - The elastomer is: - (1) polyisoprene; - (2) polybutadiene; - (3) a polymer of butadiene copolymerised with styrene; - (4) a polymer of acrylonitrile, butadiene and styrene; - (5) a polymer of butadiene copolymerised with acrylonitrile; - (6) a polymer of isobutylene copolymerised with isoprene; - (7) a polymer of ethylene copolymerised with propylene; - (8) a polymer of ethylene copolymerised with propylene and a diene; - (9) polychloroprene; - (10) a polydimethyl siloxane; - (11) a copolymer of ethylene and 3-12C α -olefin; - (12) a terpolymer of ethylene, a 3-12C α -olefin, and a diene; - (13) a copolymer of ethylene and vinyltrimethoxy silane; - (14) a copolymer of ethylene and acrylonitrile, maleic acid ester, vinyl acetate, acrylic and/or methacrylic acid ester; - (15) a copolymer of butadiene and isoprene; - (16) a terpolymer of styrene, butadiene and isoprene; - (17) a terpolymer of styrene, butadiene and isoprene; - (18) chlorobutyl (chlorinated copolymer of isobutylene and isoprene); - (19) bromobutyl (brominated copolymer of isobutylene and isoprene); or - (20) brominated copolymer of isobutylene and paramethylstyrene. - The vulcanising agent is a sulphur-containing compound, a peroxide, a metal oxide and/or a dinitroso compound. - The elastomers are pref. polymerised in the gas phase in the presence of an inert particulate material of carbon black, silica, clay and/or talc. - The elastomers especially are ethylene-propylene-diene, 4-12C α -olefin-diene, polybutadiene, poly(styrene-butadiene) or polyisoprene. - The additives are fillers, plasticisers, antioxidants and antiozonants, activators, accelerators, tackifiers, homogenizing agents, peptisers, pigments, flame retardants, or fungicides. - The fillers are carbon black; silicates of aluminium, magnesium, calcium, sodium, potassium or mixts.; carbonates of calcium, magnesium and/or mixts.; oxides of silicon, calcium, zinc, iron, titanium, and aluminium; sulphates of calcium, barium and lead; alumina trihydrate; magnesium hydroxide; phenolformaldehyde, polystyrene, and poly(α -methyl) styrene resins, natural fibres,

and/or synthetic fibres. - The plasticisers are petroleum oils; polyalkylbenzene oils; organic acid monoesters; organic acid diesters; glycol diesters; trialkyl trimellitates; trialkyl, trialkoxy-alkyl, alkyl diaryl, and triaryl phosphates; chlorinated paraffin oils; coumarone-indene resins; pine tars; vegetable oils and esters and/or epoxidised derivatives. - The antioxidants and antiozonants are hindered phenol, bisphenol and thiobisphenol; substituted hydroquinones; tris(alkylphenyl)phosphites; dialkylthio dipropionate; phenyl-naphthylamine; substituted diphenylamines; dialkyl, alkyl aryl, and diaryl substituted p-phenylene diamines; monomeric and polymeric dihydroquinoline; 2-(4-hydroxy 3,5-t-butyl-aniline)-4,6-bis(octylthio)- 1,3,5-triazine; hexahydro-1,3,5-tris- β -(3,5-di-t-butyl-4-hydroxy- phenyl)propionyl-s-triazine; 2,4,6-tris(n-1,4-dimethylpentyl-p-phenylene- diamino)-1,3,5-triazine; tris-(3,5-di-t-butyl-4-hydroxy-benzyl)isocyanurate; nickel dibutyldithiocarbamate; 2-mercaptol-yl imidazole and its zinc salt; and/or petroleum waxes. - The activators are metal oxides; fatty acids and their metal salts, di-, tri- and polyethylene glycols; and/or triethanolamine. - The accelerators are sulphenamides, thiazoles, dithiocarbamates, dithiophosphates, thiurams, guanidines, xanthates and/or thioureas. - The tackifiers are rosins and rosin acids, hydrocarbon resins, aromatic indene resins, phenolic methylene donor resins, phenolic thermosetting resins, resorcinol formaldehyde resins, and/or alkyl phenol formaldehyde resins. - PREFERRED PROCESS (I) - The unsatd. rubber is natural rubber, polybutadiene, polyisoprene, poly(butadiene-styrene), poly(isoprene-styrene), a polypentenamer, poly-chloroprene, poly(isoprene-acrylonitrile), poly(butadiene-acrylonitrile), poly-(butadiene-isoprene), and/or poly(butadiene-isoprene-styrene). - EXAMPLE - 60 phr 'Granular BR' (RTM: polybutadiene rubber, 97% cis 1,4 component, Mooney viscosity 40 (ML1+4 @ 100 °C)), 50 phr 'N650 black' (R.T.M.: carbon black as anti-agglomeration agent), 10 phr paraffinic oil, 1 phr polymerised TMQ, 3 phr zinc oxide and 2 phr stearic acid were mixed (100 °C, 50 RPM) for 5 minutes and discharged and cooled. The cooled stock was recharged at 70 °C and mixed with 1 phr TBBS (50 RPM) for 2 minutes followed by roll milling at 90 °C. The composition was press-cured into 0.8 mm thick sheets at 160 °C that had a tear strength of 74 Kn/m and crack growth of 0.6 mm. - In comparison, a composition prepared from 50 phr natural rubber, 50 phr conventional BR, 50 phr N650 Black, 10 phr Naphthenic oil, 3 phr 6PPD, 1 phr polymerised TMQ, 3 phr zinc oxide, 2 phr stearic acid and 1 phr TBBS had a tear strength of 86 Kn/m and 0.7 mm crack growth. MANUAL CODE: CPI: A08-C01; A11-B17; A11-C02A1; A12-T01; E10-A04B; E31-E; E31-F; E33; E34; E35

L123 ANSWER 40 OF 40 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 1995-384142 [199550] WPIX
 DOC. NO. CPI: C1995-166002 [199550]
 DOC. NO. NON-CPI: N1995-281396 [199550]
 TITLE: Self-woundself-adhesive surface covering rolls for -
 surface protection or decoration have good resistance to
 dimensional stability changes and distortion after
 application
 DERWENT CLASS: A18; A28; A94; G03; P78
 INVENTOR: SMITH J R
 PATENT ASSIGNEE: (DECO-N) DECORA INC; (DECO-N) DECORA NORTH AMERICA;
 (SMIT-I) SMITH J R
 COUNTRY COUNT: 7

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 681927	A2	19951115	(199550)*	EN	19[6]	<--
CA 2127430	A	19951114	(199609)	EN		<--
EP 681927	A3	19971105	(199814)	EN		<--
US 6086995	A	20000711	(200037)	EN		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 681927 A2		EP 1994-110424	19940705
US 6086995 A		US 1994-242297	19940513
CA 2127430 A		CA 1994-2127430	19940705
EP 681927 A3		EP 1994-110424	19940705
MX 207344 B		MX 1994-5856	19940802

PRIORITY APPLN. INFO: US 1994-242297 19940513

INT. PATENT CLASSIF.:

MAIN: C09J007-00

IPC RECLASSIF.: B32B0027-08 [I,A]; B32B0027-08 [I,C]; B44C0001-00 [I,C];
 B44C0001-10 [I,A]; B44C0005-00 [I,C]; B44C0005-04 [I,A];
 C09J0007-02 [I,A]; C09J0007-02 [I,C]

ECLA: B32B0027-08; B44C0001-10B; B44C0005-04; C09J0007-02K9F

USCLASS NCLM: 428/352.000

NCLS: 428/354.000; 428/906.000

BASIC ABSTRACT:

EP 681927 A2 UPAB: 20050825

The mfd. article with a self-wound self adhesive roll of surface covering comprises: (i) a substrate having an outward surface, opt. decorated, and an inward facing surface; comprising a continuous polymer film which becomes dimensionally unstable under normal processing conditions; (ii) an opt. layer, opt. decorated, comprising a continuous polymeric film which under normal processing conditions remains dimensionally stable, and which is adhesively fixed to the outward surface of (i) thereby stabilising (i); (iii) a transparent flexible synthetic resin layer having release layers on the outer surface of (i) or on (ii); and (iv) an opt. layer which is a continuous polymeric film which under normal processing conditions remains dimensionally stable, and which is adhesively fixed to the inner surface of (i) thereby stabilising (i); and a layer of PSA on the inner surface of (i) or on (iv). At least one of (iii) or (iv) must be present; and the roll includes a plurality of turns with (iii) on one turn contacting (v) on an adjacent turn, and (iii) on said one turn being readily separable from (v) on the adjacent turn whereby the roll may be controlled without delamination of the decoration covering.

USE - The decorative coating self adhesive rolls are useful as protective coverings for e.g. walls, furniture and floors, and the polymeric layers incorporated in the roll stabilise the substrate against undesirable distortion caused by dimensional instability. The surface coverings have improved stain resistance, and can be removed after years of service without damaging the substrate since adhesives with excessively high peel strength need not be used.

MANUAL CODE: CPI: A08-M03; A12-A01; G03-B04

Member(0004)

ABEQ US 6086995 A UPAB 20050825

The mfd. article with a self-wound self adhesive roll of surface covering comprises: (i) a substrate having an outward surface, opt. decorated, and an inward facing surface; comprising a continuous polymer film which becomes dimensionally unstable under normal processing conditions; (ii) an opt. layer, opt. decorated, comprising a continuous polymeric film which under normal processing conditions remains dimensionally stable, and which is adhesively fixed to the outward surface of (i) thereby stabilising (i); (iii) a transparent flexible synthetic resin layer having release layers on the outer surface of (i) or on (ii); and (iv) an opt. layer which is a continuous polymeric film which under normal processing conditions remains dimensionally stable, and which is adhesively fixed to the inner surface

10/596,007

of (i) thereby stabilising (i); and a layer of PSA on the inner surface of (i) or on (iv). At least one of (ii) or (iv) must be present; and the roll includes a plurality of turns with (iii) on one turn contacting (v) on an adjacent turn, and (iii) on said one turn being readily separable from (v) on the adjacent turn whereby the roll may be controlled without delamination of the decoration covering.

USE - The decorative coating self adhesive rolls are useful as protective coverings for e.g. walls, furniture and floors, and the polymeric layers incorporated in the roll stabilise the substrate against undesirable distortion caused by dimensional instability. The surface coverings have improved stain resistance, and can be removed after years of service without damaging the substrate since adhesives with excessively high peel strength need not be used.

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

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FILE 'HCAPLUS' ENTERED AT 11:06:48 ON 12 JAN 2011

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE 'WPIX' ENTERED AT 11:06:48 ON 12 JAN 2011

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=> s l121 not l123

L124 15 L121 NOT L123

=> dup rem l124

PROCESSING COMPLETED FOR L124

L125 15 DUP REM L124 (0 DUPLICATES REMOVED)

 ANSWERS '1-7' FROM FILE HCAPLUS

 ANSWERS '8-15' FROM FILE WPIX

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 11:07:03 ON 12 JAN 2011

USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Jan 7, 2011 (20110107/UP).

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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, WPIX' - CONTINUE? (Y)/N:y

L125 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2010:1280524 HCAPLUS Full-text

DOCUMENT NUMBER: 153:507494

TITLE: Insulation layer-forming materials patternable in high aspect ratio and manufacture of electronic devices therewith

INVENTOR(S): Tatsuta, Yoshiko; Shinba, Yoichi; Nonaka, Toshio

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 34pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2010229290	A	20101014	JP 2009-78503	20090327
PRIORITY APPLN. INFO.:			JP 2009-78503	20090327

ED Entered STN: 14 Oct 2010

AB Title materials contain (A) resins prepared by dibasic acid anhydrides with bisphenol A epoxy resin (meth)acrylates and having one carboxyl group per mol., (B) polymerization accelerators, and (C) inorg. particles with number-average particle diameter 1-50 nm. The materials are applied on substrates, exposed, and developed to have concaves, wherein conductor wirings are formed to afford title electronic devices (claimed). The layers may be developed with aqueous alkali developers containing anionic surfactants R12dR13eC6H5-d-eOC6H5-f-gR14fR15g [R12, R14 = C5-18 alkyl(oxy); R13, R15 = SO3M (M = Na, K, NH4); d, g = 1-2; e, f = 0-2]. Thus, a paste containing BF 40 (EaSO4 dispersion), jER 828 (bisphenol A epoxy resin) acrylate tetrahydrophthalate, Irgacure 819 (initiator), and KBM 503 (3-methacryloxypropyltrimethoxysilane) was applied on a PET film, dried, transferred to a Si wafer, patternwise exposed, and developed with Na dodecyldiphenylether disulfonate-containing aqueous TMAH solution to give a crack-free pattern without peels nor scums and showing resistivity $\geq 108 \Omega$.

IPCI C08G0059-17 [I,A]; C08G0059-00 [I,C*]; C08F0299-02 [I,A]; C08F0299-00 [I,C*]; H05K0001-03 [I,A]; H05K0003-10 [I,A]

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 76

ST elec insulation layer epoxy acrylate barium sulfate paste; silica alumina size carboxyl concn epoxy acrylate inductor insulator; spiral inductor insulator bisphenol epoxy resin acrylate material

IT Electric apparatus

Polymerization catalysts

(insulation layer-forming materials patternable in high aspect ratio by photolithog. using alkali development)

IT 1247012-78-7P 1247012-79-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(insulation layer-forming materials patternable in high aspect ratio by photolithog. using alkali development)

IT 7727-43-7, BF 40

RL: TEM (Technical or engineered material use); USES (Uses)

10/596,007

(particulate; insulation layer-forming materials patternable in high aspect ratio by photolithog. using alkali development)

IT 1247012-78-7P 1247012-79-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(insulation layer-forming materials patternable in high aspect ratio by photolithog. using alkali development)

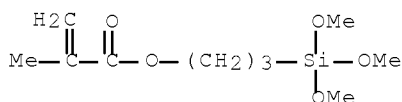
RN 1247012-78-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with 2-(chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] hydrogen 4-cyclohexene-1,2-dicarboxylate 2-propenoate (CA INDEX NAME)

CM 1

CRN 2530-85-0

CMF C10 H20 O5 Si



CM 2

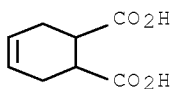
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CM 3

CRN 88-98-2

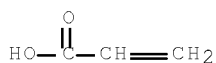
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CM 4

CRN 79-10-7

CMF C3 H4 O2



10/596,007

CM 5

CRN 25068-38-6

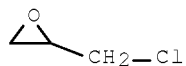
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CCI PMS

CM 6

CRN 106-89-8

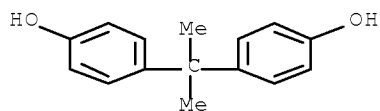
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CM 7

CRN 80-05-7

CMF C15 H16 O2



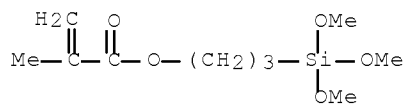
RN 1247012-79-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with 2-(chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] hydrogen butanedioate 2-propenoate (CA INDEX NAME)

CM 1

CRN 2530-85-0

CMF C10 H20 O5 Si



CM 2

CRN 193699-54-6

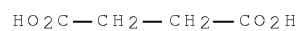
CMF (C15 H16 O2 . C3 H5 Cl O)x . x C4 H6 O4 . x C3 H4 O2

10/596,007

CM 3

CRN 110-15-6

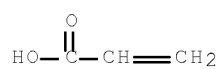
CMF C4 H6 O4



CM 4

CRN 79-10-7

CMF C3 H4 O2



CM 5

CRN 25068-38-6

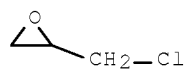
CMF (C15 H16 O2 . C3 H5 Cl O) x

CCI PMS

CM 6

CRN 106-89-8

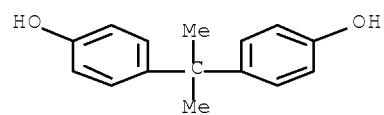
CMF C3 H5 Cl O



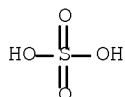
CM 7

CRN 80-05-7

CMF C15 H16 O2



IT 7727-43-7, BF 40
 RL: TEM (Technical or engineered material use); USES (Uses)
 (particulate; insulation layer-forming materials patternable in high
 aspect ratio by photolithog. using alkali development)
 RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

L125 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2010:979699 HCAPLUS Full-text
 DOCUMENT NUMBER: 153:337862
 TITLE: Method for preparation of modified micronized
barium sulfate
 INVENTOR(S): Liu, Gang; Zhang, Ying
 PATENT ASSIGNEE(S): Peop. Rep. China
 SOURCE: Faming Zhuanli Shenqing, 8pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
CN 101792167	A	20100804	CN 2010-10103394	20100129
PRIORITY APPLN. INFO.:			CN 2010-10103394	20100129
ED Entered STN: 09 Aug 2010				

AB The preparation method comprises: (1) water solution at least containing water-soluble Ba salt co-precipitation reacting with water solution at least containing water-soluble sulfate solution at 0-99° to obtain mixed precipitate of barium sulfate precipitate and other inorg. salt precipitate; adding surfactant (with chemical and/or phys. adsorption effect to barium sulfate; can be polymerized alkyl naphthalene sulfonate preferably) before, in or after the co-precipitation; (2) standing and ageing; adding purifying agent to fully remove the inorg. salt precipitate; washing and concentrating the residue precipitate; (3) mixing or reacting with surface modifier (from surfactant/ dispersant containing anionic group, chelating agent, etc.) to obtain the modified micronized barium sulfate. The water-soluble Ba salt is from one or more of Ba sulfide, Ba chloride, etc. The water-soluble sulfate solution is from one or more of sodium sulfate, potassium sulfate, magnesium sulfate, etc. The water-soluble Ba salt solution also contains one or more of Na ion, K ion, Mg ion, etc. The water-soluble sulfate also contains one or more of hydroxide ion, sulfite ion, etc. The purifying agent is from hydrochloric acid, sulfuric acid, sodium hydroxide, acetic acid or citric acid. The invention has the following advantages: (1) effectively solving the defect of difficult post-treatment in current method; (2) realizing industrialization of nano barium sulfate; (3) smart application; (4) enriching the properties of barium sulfate; (5) saving time; saving labor; (6) low cost.
 IPCI C01F0011-46 [I,A]; C01F0011-00 [I,C*]

IPCR C01F0011-00 [I,C]; C01F0011-46 [I,A]
 CC 49-5 (Industrial Inorganic Chemicals)
 ST modified micronized barium sulfate prepn method
 IT Acrylic polymers
 Aluminates
 Polyoxyalkylenes
 Polysiloxanes
 RL: MOA (Modifier or additive use); USES (Uses)
 (method for preparation of modified micronized barium sulfate)
 IT Paraffin waxes
 RL: NUU (Other use, unclassified); USES (Uses)
 (method for preparation of modified micronized barium sulfate)
 IT Fluoropolymers
 RL: TEM (Technical or engineered material use); USES (Uses)
 (method for preparation of modified micronized barium sulfate)
 IT Carboxylic acids
 RL: MOA (Modifier or additive use); USES (Uses)
 (polycarboxylic acid esters; method for preparation of modified micronized barium sulfate)
 IT Polyphosphoric acids
 RL: MOA (Modifier or additive use); USES (Uses)
 (sodium salts; method for preparation of modified micronized barium sulfate)
 IT 7646-85-7P, Zinc chloride, preparation
 RL: BYP (Byproduct); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)
 (method for preparation of modified micronized barium sulfate)
 IT 7757-82-6P, Sodium sulfate, preparation
 RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)
 (method for preparation of modified micronized barium sulfate)
 IT 7727-43-7P, Barium sulfate
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)
 (method for preparation of modified micronized barium sulfate)
 IT 64-17-5, Ethanol, uses 75-94-5, Vinyltrichlorosilane
 77-92-9, Citric acid, uses 78-08-0, Vinyl
 triethoxysilane 102-71-6, Triethanolamine, uses 110-16-7,
 Maleic acid, uses 112-80-1, Oleic acid, uses 124-30-1, Octadecyl amine
 139-33-3, Disodium ethylene diamine tetraacetate 683-10-3, Dodecyl
 betaine 1327-41-9, Polyaluminum chloride 2530-83-8,
 γ-(Glycidyoxy)propyl trimethoxysilane 2768-02-7, Vinyl
 trimethoxysilane 7632-05-5, Sodium phosphate 7681-53-0, Sodium
 hypophosphite 7758-29-4, Sodium tripolyphosphate 9003-05-8,
 Polyacrylamide 9004-99-3, Polyoxyethylene stearate 25155-19-5D,
 Naphthalenesulfonic acid, alkyl esters 25322-68-3D, alkyl ethers
 26264-58-4, Sodium methylnaphthalenesulfonate 26635-92-7, Stearyl amine
 ethoxylate 61417-55-8, Isopropyl tri(dodecyl benzene sulfonyl) titanate
 61436-50-8, Isopropyl tri(n-ethylamino-ethylamino) titanate 62180-92-1
 RL: MOA (Modifier or additive use); USES (Uses)
 (method for preparation of modified micronized barium sulfate)
 IT 64-19-7, Acetic acid, uses 84-74-2, Dibutyl phthalate 1310-73-2,
 Sodium hydroxide, uses 7647-01-0, Hydrochloric acid, uses 7664-93-9,

Sulfuric acid, uses

RL: NUU (Other use, unclassified); USES (Uses)

(method for preparation of modified micronized barium sulfate)

IT 7487-88-9, Magnesium sulfate, reactions 7733-02-0, Zinc sulfate
 7758-98-7, Copper sulfate, reactions 7778-80-5, Potassium sulfate,
 reactions 7783-20-2, Ammonium sulfate, reactions 10022-31-8, Barium
 nitrate 10028-22-5, Ferric sulfate 10043-01-3, Aluminum sulfate
 10361-37-2, Barium chloride, reactions 17194-00-2, Barium hydroxide
 21109-95-5, Barium sulfide

RL: RCT (Reactant); RACT (Reactant or reagent)

(method for preparation of modified micronized barium sulfate)

IT 9002-84-0, Polytetrafluoroethylene

RL: TEM (Technical or engineered material use); USES (Uses)

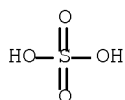
(method for preparation of modified micronized barium sulfate)IT 7727-43-7P, Barium sulfate

RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)

(method for preparation of modified micronized barium sulfate)

RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

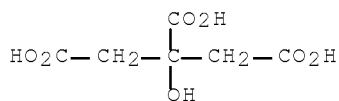
IT 77-92-9, Citric acid, uses

RL: MOA (Modifier or additive use); USES (Uses)

(method for preparation of modified micronized barium sulfate)

RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



L125 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2009:675388 HCAPLUS Full-text

DOCUMENT NUMBER: 151:42111

TITLE: Aluminous cement-based composition for
 application in endodontics and cementitious product
 obtained thereof

INVENTOR(S): Pandolfelli, Victor Carlos; Oliveira, Ivone Regina De;
 Jacobovitz, Marcos; Rossetto, Hebert Luis
 PATENT ASSIGNEE(S): Fundacao Universidade Federal De Sao Carlos, Brazil
 SOURCE: PCT Int. Appl., 24pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2009067774	A2	20090604	WO 2008-BR365	20081127
WO 2009067774	A3	20091203		
W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
BR 2007004502	A2	20090721	BR 2007-4502	20071127
EP 2224895	A2	20100908	EP 2008-855244	20081127
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, AL, BA, MK, RS			
PRIORITY APPLN. INFO.:			BR 2007-4502	A 20071127
			WO 2008-BR365	W 20081127

ED Entered STN: 04 Jun 2009

AB The present invention provides a composition based on calcium aluminate cement (CAC) for application in endodontics, comprising: (a) a cement - Al₂O₃ (> 68.5 wt%), CaO (< 31 wt%), SiO₂ (0.3-0.8 wt%), MgO (0.4-0.5 wt%), and Fe₂O₃ (< 0.3 wt%); (b) additives: dispersant at a content of 0.4 to 0.8 wt% of the cement, a plasticizer at a content of 2.0 to 4.0 wt% of the cement, and a radiopaque agent at a content of 20 to 35 wt% of the cement; and (c) water, wherein water/cement ratio lies in the range of 0.19-0.24 in the presence of additives. Cementitious product obtained thereof, after setting time, is also disclosed and characterized by enhanced properties when compared to the most used com. repair cement, MTA. Thus, manipulation tests consisted of powder mixture of different types of material, one at a time, with water on a glass plate to determine visually the water-to-cement ratio (grams of water per g of cement) necessary to obtain a homogeneous paste with ideal viscosity for placement; these tests were also conducted in the presence of various additives to verify their influence on the paste viscosity as well as on the water consumption; the water/cement ratio obtained for CAC was preferentially 0.32, although such ratio was reduced preferentially to 0.21 after additives incorporation. IPCI A61K0006-06 [I,A]; A61K0006-02 [I,C]; A61K0006-06 [I,A]; A61C0005-02

[I,C]; A61C0005-02 [I,A]

IPCR A61K0006-02 [I,C]; A61K0006-06 [I,A]; A61C0005-02 [I,C]; A61C0005-02 [I,A]

CC 63-7 (Pharmaceuticals)

IT Setting agents

(accelerators; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Alkalinity

Antibacterial agents

Biocompatibility
Compressive strength
Dispersing agents

Human

Hydration reaction kinetics

Ionic conductivity

Plasticizers

Pore size

Porosity

Radiography imaging agents

Strength

Tensile strength

Tooth

pH

(aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Cement

(aluminous, calcium aluminate; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Dental materials and appliances

(cements; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Dental materials and appliances

(ceramics; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Dental materials and appliances

(endodontic; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Dental materials and appliances

(fillings; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Carboxylic acids

RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(polycarboxylic, ethers; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Glycols

RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(polymers; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Setting agents

(retarders; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Dental materials and appliances

(root-canal fillers; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Hardening (mechanical)

(setting; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT Polyphosphoric acids

RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sodium salts; aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT 68-04-2, Sodium citrate 75-47-8 77-92-9, Citric acid, biological studies 554-13-2, Lithium carbonate 1304-76-3, Bismuth oxide (Bi₂O₃), biological studies 1304-85-4, Bismuth hydroxide nitrate oxide (Bi₅(OH)₉(NO₃)₄O) 1305-62-0, Calcium hydroxide (Ca(OH)₂),

biological studies 1305-78-8, Calcium oxide (CaO), biological studies 1309-37-1, Ferric oxide, biological studies 1309-48-4, Magnesium oxide (MgO), biological studies 1314-13-2, Zinc oxide (ZnO), biological studies 1314-23-4, Zirconium oxide (ZrO₂), biological studies 1344-28-1, Alumina, biological studies 7439-93-2D, Lithium, salts 7631-86-9, Silica, biological studies 7664-38-2, Phosphoric acid, biological studies 7727-43-7, Barium sulfate (BaSO₄) 9003-01-4, Polyacrylic acid 10043-52-4, Calcium chloride (CaCl₂), biological studies 18282-10-5, Tin oxide (SnO₂) 25087-26-7, Polymethacrylic acid 54193-36-1, Sodium polymethacrylate

RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

IT 77-92-9, Citric acid, biological studies

7727-43-7, Barium sulfate (BaSO₄)

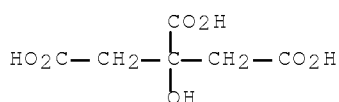
RL: TEM (Technical or engineered material use); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)

(aluminous cement-based composition for application in endodontics and cementitious product obtained thereof)

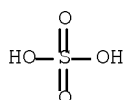
RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

L125 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2007:355549 HCAPLUS Full-text

DOCUMENT NUMBER: 146:386390

TITLE: Peptide based sealant for enhancing effects of hair colorant and conditioner

INVENTOR(S): Beck, William A.; O'Brien, John P.; Wang, Hong

PATENT ASSIGNEE(S): E. I. Du Pont De Nemours and Co., USA

SOURCE: U.S. Pat. Appl. Publ., 21 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070067924	A1	20070329	US 2006-512910	20060830
US 7736633	B2	20100615		
US 20080206809	A1	20080828	US 2006-516362	20060905
US 7427656	B2	20080923		
CA 2620051	A1	20070405	CA 2006-2620051	20060928
WO 2007038704	A1	20070405	WO 2006-US37951	20060928
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
WO 2007038733	A1	20070405	WO 2006-US38006	20060928
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1928397	A1	20080611	EP 2006-804250	20060928
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2009512639	T	20090326	JP 2008-533647	20060928
MX 2008003927	A	20080409	MX 2008-3927	20080324
CN 101282705	A	20081008	CN 2006-80035535	20080326
KR 2008055954	A	20080619	KR 2008-7009960	20080425
US 20090048428	A1	20090219	US 2008-207963	20080910
US 7795382	B2	20100914		
US 20100189670	A1	20100729	US 2010-754630	20100406
PRIORITY APPLN. INFO.:			US 2005-721329P	P 20050928
			US 2006-512910	A3 20060830
			US 2006-516362	A3 20060905
			WO 2006-US38006	W 20060928

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 30 Mar 2007

AB Methods are provided for enhancing the longevity of the binding of various benefit agents to hair and skin. Applications of traditional and non-traditional colorants and conditioners to hair and skin are amended with compos. of hair or skin-binding peptides resp. The presence of the hair or skin-binding peptide compos. act to increase the longevity of the applied colorant or conditioner on the hair or skin.

INCL 008405000

IPCI A61K0008-00 [I,A]; A61K0008-64 [I,A]; A61Q0005-12 [I,A]

IPCR A61K0008-00 [I,C]; A61K0008-00 [I,A]; A61K0008-30 [I,C]; A61K0008-64 [I,A]; A61Q0005-12 [I,C]; A61Q0005-12 [I,A]

NCL 008/405.000; 424/070.600; 424/070.140

CC 62-5 (Essential Oils and Cosmetics)

IT Carboxylic acids
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (hydroxy; peptide based sealant for enhancing effects of hair colorants and conditioners)

IT Beeswax
 Coloring materials
 Fermentation
 Hair conditioners
 Hair dyes
 Latex
 Lawsonia inermis
 Nanoparticles
 Sealing compositions
 Skin conditioners
 Sunscreens
 (peptide based sealant for enhancing effects of hair colorants and conditioners)

IT 50-21-5, Lactic acid, biological studies 50-70-4, Sorbitol, biological studies 56-81-5, Glycerin, biological studies 57-55-6, Propylene glycol, biological studies 58-95-7, Vitamin E acetate 69-72-7, Salicylic acid, biological studies 69-72-7D, Salicylic acid, derivs., polymers 77-92-9, Citric acid, biological studies 79-10-7D, Acrylic acid, derivs., polymers 79-14-1, Glycolic acid, biological studies 79-81-2, Vitamin A palmitate 82-28-0, Disperse Orange 87-28-5, Ethylene glycol salicylate 87-69-4, Tartaric acid, biological studies 94-09-7, Ethyl p-aminobenzoate 96-26-4, Dihydroxyacetone 103-41-3, Benzyl cinnamate 104-28-9, 2-Ethoxyethyl p-methoxycinnamate 104-98-3, Urocanic acid 118-55-8, Phenyl salicylate 118-56-9, Homomenthyl salicylate 118-58-1, Benzyl salicylate 118-60-5, 2-Ethylhexyl salicylate 128-95-0, Disperse Violet 1 134-09-8, Menthyl anthranilate 147-14-8, Sunfast Blue 150-13-0 471-34-1, Calcium carbonate, biological studies 477-73-6, Basic Red 2 504-63-2, 1,3-Propanediol 526-99-8, Galactaric acid 546-93-0, Magnesium carbonate 557-05-1, Zinc stearate 587-98-4, Ext D and C Yellow Number 1 610-81-1, 4-Amino-3-nitrophenol 632-99-5, Basic Violet 14 813-93-4, Bismuth citrate 980-26-7, Sunfast magenta 1103-38-4, D&C Red Number 12 barium lake 1103-39-5, D&C Red Number 11 calcium lake 1220-94-6, Disperse Violet 4 1304-28-5, Barium oxide, biological studies 1306-06-5, Hydroxyapatite 1314-13-2, Zinc oxide, biological studies 1332-37-2, Iron oxide, biological studies 1390-65-4, Carmine 2174-16-5, TEA salicylate 2321-07-5D, Fluorescein, halogenated derivative 2321-07-5D, D And C Yellow number 7, lake 2379-74-0,
 D&C Red Number 30 2390-60-5, Basic Blue 7 2440-22-4, 2-(2-Hydroxy-5-methylphenyl)benzotriazole 2475-46-9, Disperse Blue 3 2519-30-4, Brilliant Black 1 2580-56-5, Basic Blue 26 2784-94-3, HC Blue 1 2814-77-9, D&C Red Number 36 2871-01-4, HC Red 3 3248-91-7, Basic Violet 2 3468-63-1, D And C Orange Number 17 3567-66-6, Acid Red 33 3844-45-9, D And C Blue Number 1 4769-97-5, 4-Nitroindole 4926-55-0, HC Yellow 2 5281-04-9 5307-14-2, 2-Nitro-p-phenylenediamine 5466-76-2, Isopropyl p-methoxycinnamate 5466-77-3, 2-Ethylhexyl p-methoxycinnamate 6197-30-4, Octocrylene 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6359-82-6, Ext D and C Yellow Number 3 6371-67-1, D&C Red Number 13 strontium lake 6371-76-2, D&C Red Number 31

calcium lake 6417-83-0, D&C Red 34 calcium lake 6915-15-7, Malic acid 6969-49-9, Octyl salicylate ~~7727-43-7~~, Barium sulfate 7778-18-9, Calcium sulfate 7787-59-9, Bismuth oxychloride 9003-53-6, Polystyrene 9003-55-8, Styrene butadiene copolymer 9004-61-9, Hyaluronic acid 9011-14-7, Polymethyl methacrylate 9017-21-4, Polyvinyltoluene 10101-52-7, Zirconium silicate 10101-66-3, Manganese violet 10237-77-1, 3-Hydroxyvaleric acid 10555-79-0 11118-57-3, Chromium oxide 12225-21-7, C.I. Pigment Yellow 100 12270-25-6, Basic Red 51 13110-37-7, Amyl p-aminobenzoate 13463-67-7, Titanium dioxide, biological studies 14309-41-2, Octyl p-aminobenzoate 15790-07-5, C.I. Pigment Yellow 104 15876-39-8 15876-57-0 15876-58-1 16485-10-2, DL-Panthenol 17372-87-1D, Eosin, derivs. 20721-50-0, Disperse Black 9 21245-02-3, 2-Ethylhexyl p-dimethyl aminobenzoate 21645-51-2, Aluminum hydroxide, biological studies 24905-87-1, HC Red 7 25322-68-3, Polyethylene glycol 25525-21-7, Glucaric acid 25869-00-5, Ferric ammonium ferrocyanide 26381-41-9, Basic Brown 16 26403-67-8D, Methicone, derivs. 27503-81-7, Phenylbenzimidazolesulfonic acid 27538-35-8, Ethyl urocanate 30551-89-4, Poly(allylamine) 33229-34-4, HC Blue 2 38866-20-5 57455-37-5, Ultramarine blue 59320-13-7, HC Yellow 12 59820-43-8, HC Yellow 4 59820-63-2 61901-61-9, Basic Orange 31 65235-31-6 66612-11-1 68123-13-7, Basic Blue 99 68391-31-1, Basic Yellow 57 68814-04-0, C.I. Pigment Yellow 115 68921-42-6 70356-09-1, 4-tert-Butyl-4'-methoxydibenzoylmethane 76840-16-9 80062-31-3 81612-54-6, HC Orange 3 82576-75-8, HC Violet 1 83732-72-3, HC Blue Number 7 83803-99-0, HC Brown 2 84041-77-0 85765-48-6, HC Orange 2 86419-69-4, HC Yellow Number 9 92982-24-6 96436-87-2, Octyl p-methoxycinnamate 103810-94-2, Dihydroxybenzophenone 104226-19-9, HC Violet 2 104333-00-8, HC Yellow 6 116844-55-4, Basic Yellow 87 117287-93-1 117804-99-6D, d And c Green number 3, lake 126045-04-3, Tetrahydroxybenzophenone 129726-75-6 132885-85-9, HC Blue 12 173994-75-7, HC Blue Number 10 176742-32-8, Basic Brown 17 186202-95-9 747384-30-1, Hydroxymethoxybenzophenonesulfonic acid 847143-23-1 847143-43-5 847143-47-9 866840-35-9, HC Red Number 5 882304-88-3 911288-83-0 911288-84-1 911288-85-2 911288-86-3 911288-87-4 911289-08-2 929691-48-5 929691-60-1 930105-86-5 930105-87-6 930612-23-0 930612-24-1 930612-25-2 930612-26-3 930612-27-4 930612-28-5 930612-29-6 930612-30-9 930612-31-0 930612-32-1 930612-33-2

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(peptide based sealant for enhancing effects of hair colorants and conditioners)

IT 77-92-9, Citric acid, biological studies

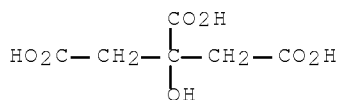
7727-43-7, Barium sulfate

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

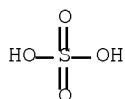
(peptide based sealant for enhancing effects of hair colorants and conditioners)

RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
 (1 CITINGS)
 REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L125 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2007:907793 HCAPLUS Full-text
 DOCUMENT NUMBER: 147:237000
 TITLE: Cellulose dispersed materials with high
 viscosity without increasing cellulose concentration
 and preparation thereof
 INVENTOR(S): Uda, Yukio; Kamino, Kazuto; Mori, Etsuko; Osaki,
 Masanori; Kojima, Takako
 PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2007204716	A	20070816	JP 2006-28736	20060206
PRIORITY APPLN. INFO.:			JP 2006-28736	20060206

ED Entered STN: 16 Aug 2007

AB The materials, useful for foods, cosmetics, coatings, etc. (no data), contain cellulose with average diameter $\leq 5 \mu\text{m}$, its dispersion media, and 0.1-1.2% (to the cellulose) ionic compds. soluble in the media. To prepare the materials, cellulose is dissolved in aqueous inorg. acid solns., re-precipitated in coagulant solvents, acidolyzed, eliminated of acids, and mixed with dispersion media and then with the ionic compds. Thus, 4% aqueous cellulose solution was diluted with water and mixed with ammonium lactate (I) at I/cellulose 0.1/100 under agitation to give a dispersion, which was aged at room temperature for 1 day to show viscosity 13,400 mPa-s, 660-nm light transmittance 86.0%, and average particle diameter 0.11 μm . IPCI C08J0003-02 [I,A]

IPCR C08J0003-02 [I,C]; C08J0003-02 [I,A]

CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)

ST cellulose dispersed thixotropic liq viscosity enhanced; ammonium lactate arginine contg cellulose dispersion thixotropic property

IT Disperse systems
 (preparation of viscosity-increased cellulose dispersions containing ionic compds. for foods, cosmetics, and coatings)

IT 50-81-7, Ascorbic acid, uses 56-40-6, Glycine, uses 56-45-1, L-Serine,

uses 56-86-0, L-Glutamic acid, uses 62-54-4, Calcium acetate
 63-68-3, L-Methionine, uses 64-19-7, Acetic acid, uses 68-04-2,
 Trisodium citrate 72-17-3, Sodium lactate 74-79-3, L-Arginine, uses
77-92-9, Citric acid, uses 98-79-3,
 Pyrrolidonecarboxylic acid 127-08-2, Potassium acetate 127-09-3,
 Sodium acetate 134-03-2, Sodium ascorbate 144-55-8, Sodium hydrogen
 carbonate, uses 147-85-3, L-Proline, uses 471-34-1, Calcium carbonate,
 uses 497-19-8, Sodium carbonate, uses 506-87-6, Ammonium carbonate
 515-98-0, Ammonium lactate 584-08-7, Potassium carbonate 814-80-2,
 Calcium lactate 1066-33-7, Ammonium hydrogen carbonate 7447-40-7,
 Potassium chloride, uses 7487-88-9, Magnesium sulfate, uses 7631-99-4,
 Sodium nitrate, uses 7647-14-5, Sodium chloride, uses 7693-13-2,
 Calcium citrate 7727-43-7, Barium sulfate
 7733-02-0, Zinc sulfate 7757-79-1, Potassium nitrate, uses 7757-82-6,
 Sodium sulfate, uses 7778-18-9, Calcium sulfate 7778-49-6, Potassium
 citrate 7778-80-5, Potassium sulfate, uses 7783-20-2, Ammonium
 sulfate, uses 10043-83-1, Magnesium phosphate 12125-02-9, Ammonium
 chloride, uses 16068-46-5, Potassium phosphate 16177-21-2, Sodium
 L-glutamate 28874-51-3

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PROC (Process); USES (Uses)

(preparation of viscosity-increased cellulose dispersions containing
 ionic compds. for foods, cosmetics, and coatings)

IT 9004-34-6, Cellulose, uses

RL: PEP (Physical, engineering or chemical process); TEM (Technical or
 engineered material use); PROC (Process); USES (Uses)

(preparation of viscosity-increased cellulose dispersions containing
 ionic compds. for foods, cosmetics, and coatings)

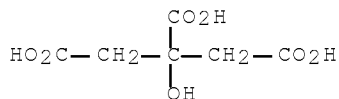
IT 77-92-9, Citric acid, uses 7727-43-7,
Barium sulfate

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PROC (Process); USES (Uses)

(preparation of viscosity-increased cellulose dispersions containing
 ionic compds. for foods, cosmetics, and coatings)

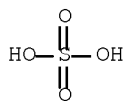
RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

L125 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2007:1077051 HCAPLUS Full-text
 DOCUMENT NUMBER: 147:386813
 TITLE: BaSO4 nanoparticles modified by copolymers
 prepared from unsaturated monomers
 PATENT ASSIGNEE(S): Solvay Infra Bad Hoenningen G.m.b.H., Germany
 SOURCE: Eur. Pat. Appl., 17pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

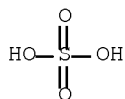
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1837362	A1	20070926	EP 2006-6062	20060324
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
WO 2007110373	A1	20071004	WO 2007-EP52764	20070322
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 2010593	A1	20090107	EP 2007-727238	20070322
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
JP 2009531494	T	20090903	JP 2009-502038	20070322
US 20090048380	A1	20090219	US 2008-282234	20080909
PRIORITY APPLN. INFO.:			EP 2006-6062	A 20060324
			WO 2007-EP52764	W 20070322

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 26 Sep 2007

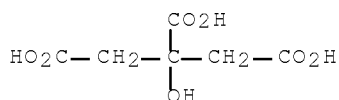
AB BaSO4 nanoparticles coated with a copolymer prepared by one- or multistep aqueous copolymn. a mixture comprising unsatd. monomers containing precursors of chelating agents, olefinically unsatd. monomers containing acid groups, olefinically unsatd. terpene hydrocarbons and dimeric α -alkylvinylarom. compds. are used in form of redispersible powders as polymer additives and as additives for adhesives. Thus, a typical dispersion prepared by mixing 50 weight% water, 15 weight% a dispersion having solid content 27 weight% and pH 4.7 prepared by heating 1,716.9 g water to 90°, dropwise adding during 4 h a mixture containing 47.7 g acrylic acid, 75.3 g 2-(acetoacetoxy)ethyl methacrylate (Lonzamon AAEMA), 199.5 g Me methacrylate, 267.3 g 2-ethylhexyl methacrylate, 113 g styrene and 50.1 g diphenylethylene, then during 3.75 h a mixture containing 46.4 g 25% solution NH3 in 232.2 g water, then during 4.5 h a mixture containing 75.5 g ammonium peroxodisulfate in 176 g water and stirring 3 h at 90° and BaSO4 (balance) using citrate as a crystallization inhibitor has BaSO4 particle size d50 = 45 nm. IPCI C08J0003-18 [I,A]; C09D0133-08 [I,A]; C09D0005-03 [I,A]; C09D0133-06 [I,A]; C08K0003-00 [I,A]; C08K0007-00 [I,A]; C08F0012-32 [N,A];

C08F0012-00 [N,C*]
 IPCR C08J0003-18 [I,C]; C08J0003-18 [I,A]; C08F0012-00 [N,C]; C08F0012-32 [N,A]; C08K0003-00 [I,C]; C08K0003-00 [I,A]; C08K0007-00 [I,C]; C08K0007-00 [I,A]; C09D0005-03 [I,C]; C09D0005-03 [I,A]; C09D0133-06 [I,C]; C09D0133-06 [I,A]; C09D0133-08 [I,C]; C09D0133-08 [I,A]
 CC 37-6 (Plastics Manufacture and Processing)
 ST barium sulfate nanoparticle dispersing agent
 unsatd monomer chelating agent
 IT Adhesives
 Chelating agents
Dispersing agents
 (BaSO₄ nanoparticles coated with a copolymer prepared by one- or multistep aqueous copolymn. a mixture comprising unsatd. monomers)
 IT Epoxides
 Polyesters
 Polyurethanes
 RL: POF (Polymer in formulation); USES (Uses)
 (BaSO₄ nanoparticles coated with a copolymer prepared by one- or multistep aqueous copolymn. a mixture comprising unsatd. monomers)
 IT Nanoparticles
 (BaSO₄; BaSO₄ nanoparticles coated with a copolymer prepared by one- or multistep aqueous copolymn. a mixture comprising unsatd. monomers)
 IT Ionomers
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acrylic; BaSO₄ nanoparticles coated with a copolymer prepared by one- or multistep aqueous copolymn. a mixture comprising unsatd. monomers)
 IT 950523-53-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (BaSO₄ nanoparticles coated with a copolymer prepared by one- or multistep aqueous copolymn. a mixture comprising unsatd. monomers)
 IT 7727-43-7, Barium sulfate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (BaSO₄ nanoparticles coated with a copolymer prepared by one- or multistep aqueous copolymn. a mixture comprising unsatd. monomers)
 IT 77-92-9D, Citric acid, salts 9003-04-7, Sodium polyacrylate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (crystallization inhibitor; BaSO₄ nanoparticles coated with a copolymer prepared by one- or multistep aqueous copolymn. a mixture comprising unsatd. monomers)
 IT 7727-43-7, Barium sulfate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (BaSO₄ nanoparticles coated with a copolymer prepared by one- or multistep aqueous copolymn. a mixture comprising unsatd. monomers)
 RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

IT 77-92-9D, Citric acid, salts
 RL: TEM (Technical or engineered material use); USES (Uses)
 (crystallization inhibitor; BaSO₄ nanoparticles
 coated with a copolymer prepared by one- or multistep aqueous copolymn. a
mixture comprising unsatd. monomers)
 RN 77-92-9 HCAPLUS
 CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L125 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2007:1399813 HCAPLUS Full-text

DOCUMENT NUMBER: 148:63328

TITLE: Preparation of supported acidic hydrosulfate
catalyst for manufacturing citrate plasticizer

INVENTOR(S): Chen, Bo; Zhao, Guofeng; Jia, Zhenlin; Liao, Wenjun

PATENT ASSIGNEE(S): Tianjin Youlong Science and Technology Development
 Co., Ltd., Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7pp.
 CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

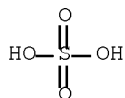
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 101081368	A	20071205	CN 2006-10013878	20060529
PRIORITY APPLN. INFO.:			CN 2006-10013878	20060529

ED Entered STN: 10 Dec 2007

AB The title catalyst supported on ultrafine barium sulfate is prepared from
 (weight parts) hydrosulfate (sodium salt, potassium salt, ammonium salt or their
mixture) 10-80, barium oxide or barium hydroxide 6-70 and composite dispersing
agent (PEG-200 and PEG-2000 at a weight ratio of 5:1) 0.1-5. The catalyst is
 prepared by the steps of: (1) preparing 0.1-0.3 mol/L hydrosulfate solution, (2)
 adding composite dispersing agent, adding barium oxide or barium hydroxide under
 stirring, reacting for 0.1-5 h, and evaporating, and (3) drying, pulverizing, and
 sieving to < 200 mesh.

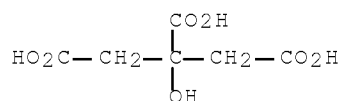
IPCI B01J0027-055 [I,A]; B01J0027-053 [I,C*]; B01J0023-02 [I,A]; C07C0069-34

[N,A]; C07C0069-00 [N,C*]; C07C0067-08 [N,A]; C07C0067-00 [N,C*]
 IPCR B01J0027-053 [I,C]; B01J0027-055 [I,A]; B01J0023-02 [I,C]; B01J0023-02 [I,A]; C07C0067-00 [I,C]; C07C0067-08 [I,A]; C07C0069-00 [I,C]; C07C0069-34 [I,A]
 CC 67-1 (Catalysis, Reaction Kinetics, and Inorganic Reaction Mechanisms)
 Section cross-reference(s): 23
 ST hydrosulfate catalyst citrate barium sulfate
 IT Esterification catalysts
 Plasticizers
 (preparation of supported acidic hydrosulfate catalyst for manufacturing citrate plasticizer)
 IT Polyoxyalkylenes, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (preparation of supported acidic hydrosulfate catalyst for manufacturing citrate plasticizer)
 IT 7646-93-7, Potassium hydrogen sulfate 7681-38-1, Sodium hydrogen sulfate 7803-63-6, Ammonium hydrogen sulfate
 RL: CAT (Catalyst use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
 (preparation of supported acidic hydrosulfate catalyst for manufacturing citrate plasticizer)
 IT 7727-43-7P, Barium sulfate
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of supported acidic hydrosulfate catalyst for manufacturing citrate plasticizer)
 IT 25322-68-3, Polyethylene glycol
 RL: NUU (Other use, unclassified); USES (Uses)
 (preparation of supported acidic hydrosulfate catalyst for manufacturing citrate plasticizer)
 IT 77-94-1P
 RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of supported acidic hydrosulfate catalyst for manufacturing citrate plasticizer)
 IT 71-36-3, n-Butanol, reactions 77-92-9, Citric acid, reactions 1304-28-5, Barium oxide, reactions 17194-00-2, Barium hydroxide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of supported acidic hydrosulfate catalyst for manufacturing citrate plasticizer)
 IT 7727-43-7P, Barium sulfate
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of supported acidic hydrosulfate catalyst for manufacturing citrate plasticizer)
 RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

IT 77-92-9, Citric acid, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of supported acidic hydrosulfate catalyst for manufacturing
 citrate plasticizer)
 RN 77-92-9 HCAPLUS
 CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



=> d iall abeq tech abex fraghitstr 8-15
 YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, WPIX' - CONTINUE? (Y)/N:y

L125 ANSWER 8 OF 15 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 2010-P62499 [201080] WPIX
 TITLE: High solids, one-component, storage stable coating
composition, useful for coating substrates (e.g.
 plywood), comprises epoxy resin, hydrocarbon compound,
 alkoxy-functional and/or silanol functional
 silicone and ketimine curing agent
 DERWENT CLASS: A21; A82; F09; G02
 INVENTOR: MOWRER N R; SHETH K
 PATENT ASSIGNEE: (PITT-C) PPG IND OHIO INC; (MOWR-I) MOWRER N R; (SHET-I)
 SHETH K
 COUNTRY COUNT: 113

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2010135730	A2	20101125	(201080)*	EN	36	[0]
US 20100297357	A1	20101125	(201080)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2010135730	A2	WO 2010-US35915	20100524
US 20100297357	A1 Provisional	US 2009-180504P	20090522
US 20100297357	A1	US 2010-783793	20100520

PRIORITY APPLN. INFO: US 2010-783793 20100520
 US 2009-180504P 20090522

INT. PATENT CLASSIF.:

IPC ORIGINAL: B05D0001-36 [I,A]; B05D0001-36 [I,C]; C08G0059-00 [I,C];
 C08G0059-40 [I,A]; C09D0163-00 [I,A]; C09D0163-00 [I,A];
 C09D0163-00 [I,C]; C09D0183-04 [I,A]; C09D0183-04 [I,C]

USCLASS NCLM: 427/407.100

NCLS: 523/400.000; 523/435.000

BASIC ABSTRACT:

WO 2010135730 A2 UPAB: 20101213

NOVELTY - High solids, one-component, storage stable coating composition comprises: (a) an epoxy resin comprising more than one 1,2 epoxy groups per molecule; (b) a hydrocarbon compound having a softening point of 50-140 degrees C; (c) an alkoxy-functional and/or silanol functional silicone; and (d) a ketimine curing agent comprising a reaction product of reactants comprising a polyalkyldiamine component and a ketone component.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of applying a multi-layer coating to a substrate, comprising applying a first coating layer over at least a portion of a substrate, where the first coating layer is deposited from the coating composition and applying a second coating layer over at least a portion of the first coating layer.

USE - The coating composition is useful: for coating substrates (claimed), which includes cellulosic-containing materials, paper, paperboard, cardboard, plywood and pressed fiber boards, hardwood, softwood, wood veneer, particleboard, chipboard, oriented strand board, and fiberboard; and also useful as a single coating e.g. as a clearcoat and/or a topcoat, as a basecoat in a two-coat composition or as a layer of a multi-component coating.

ADVANTAGE - The high solids, one-component, storage stable coating composition exhibits: excellent package storage stability; high hardness and mar resistance to the coating film; good hot water immersion properties; good adhesion to a variety of substrates; and good corrosion resistance over metal substrates.

MANUAL CODE: CPI: A05-A01E4; A06-A00E1; A07-A04A; A08-C08; A08-D; A10-E; A10-E18; A11-B05; A12-B01; F05-A06B; F05-B; G02-A01A; G02-A02G

TECH

ORGANIC CHEMISTRY - Preferred Components: The alkoxy-functional and/or silanol functional silicone comprises substituted silyloxy compounds of formula $(R2-O-(Si(R1)2-O)_n-R2)$ (I). The ketone component of the ketimine curing agent comprises methyl isobutyl ketone. The reaction product of component (d) further comprises a catalyst, which is tertiary amines, phenols or organometallic catalysts.

R1 = upto 6C alkyl, aryl or alkoxy or OH;

R2 = upto 6C alkyl or aryl or H; and

n = selected so that the silicone has a weight average molecular weight of 400-10000.

Preferred Method: The second coating layer is deposited from a basecoat and/or topcoat coating composition. The method further comprises applying a third coating layer over at least a portion of the second coating layer, where the third coating layer is deposited from a substantially clear coating composition.

POLYMERS - Preferred Composition: The alkoxy-functional and/or silanol functional silicone is alkoxy-functional and has alkoxy content of 10-30 wt.% based on the total weight of the silicone. The polyoxypropylenediamine component of the ketimine curing agent comprises a blend of polyoxypropylenediamine having a molecular weight of 200-500 and polyoxypropylenediamine having a molecular weight of 1000-3000 at a weight ratio of 9:1-6:4. The ketimine curing agent has a degree of ketimation of 90% or higher. The coating composition comprises: (a) (5-80 wt.%); (b) (1-50 wt.%); (c) (0.1-35 wt.%); and (d) (1-30 wt.%). Preferred Components: The polyalkyldiamine component comprises a polyoxyalkyldiamine component, which is polyoxypropylenediamine component. The epoxy resin comprises at least one polymer, which is epichlorohydrin-bisphenol A epoxy resins, epichlorohydrin bisphenol F epoxy resins, hydrogenated bisphenol A epichlorohydrin epoxy resins, glycidyl methacrylate resins, glycidyl esters, phenol novolac epoxy resins or resorcinol-modified epoxy resins. The hydrocarbon compound comprises at least one polymer, which is a

coumarone-indene resin, terpene resins, ketone resins, aliphatic hydrocarbon resins or aromatic hydrocarbon resins. The coating composition further comprises: a moisture scavenger; another polyalkyldiamine component different from the polyalkyldiamine component; an aldimine curing agent; and an epoxy-functional resin different from the epoxy resin, where the epoxy-functional resin comprises at least one polymer comprising epoxy-functional acrylic resins, epoxy-functional silane resins or epoxy-functional silicones.

ABEX EXAMPLE - Typical coating composition comprised of (in wt.%): Part A (Epon 1001-0-75 (RTM: Epoxy resin at 75 wt.% solids in methyl n-amyl ketone) (290.3), Anti-Terra U (RTM: 50% Solids solution of a salt of unsaturated polyamine amides and low molecular weight acidic polyesters) (9), Suspeno 201-NBA (RTM: Antisettling agent) (8.7), KROMA R0-5097 (RTM: Red iron oxide pigment) (59), Nytal 3300 (RTM: Talc) (240.9), Bartex 65 (RTM: Barium sulfate) (211.1), Bentone SD-2 (RTM: Rheological additive) (2), A171 (RTM: Vinyl trimethoxysilane moisture scavenger) (10.3)); Part B (Aromatic 150 (RTM: hydrocarbon fluid) (111.1), SB-1100 (RTM: Hydrocarbon resin) (69.4); and Part C (methyl amyl ketone (67.3), A171 (RTM: Vinyl trimethoxysilane moisture scavenger) (33.8) and KR-401N (RTM: Alkoxy-functional silicone) (23.8), EH-235RS (RTM: Ketimine curing agent) (58.6)).

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L125 ANSWER 9 OF 15 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 2010-J78784 [201054] WPIX
 TITLE: Chemical two-component mortar composition to chemically fasten e.g. threaded rod anchors comprises resin component having free radical-curable, ethylenically unsaturated compound/methacryloxyalkyltrialkoxysilane, and curing agent component
 DERWENT CLASS: A14; A21; A25; A93; L02
 INVENTOR: KUMRU M; KURTH C; MAIERSHOFER S; PFEIL A; REINHEIMER A
 PATENT ASSIGNEE: (HILT-C) HILTI AG
 COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
AU 2010200120	A1	20100729	(201054)*	EN	24[0]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
AU 2010200120	A1	AU 2010-200120	20100112

PRIORITY APPLN. INFO: DE 2009-102009004421 20090113

INT. PATENT CLASSIF.:

IPC ORIGINAL: C04B0026-00 [I,C]; C04B0026-06 [I,A]; C08F0020-00 [I,C]; C08F0020-10 [I,A]

BASIC ABSTRACT:

AU 2010200120 A1 UPAB: 20100826

NOVELTY - A chemical two-component mortar composition comprises resin component (A), which contains, as curable component, at least one free radical-curable, ethylenically unsaturated compound (a1); and curing agent component (B), which is disposed separately from it so as to inhibit reaction and contains curing agent for the resin of the resin component (A), with

improved adhesion to the surface of moist boreholes in a mineral substrate, where the resin component (A) contains at least one methacryloxyalkyltrialkoxysilane (b1) in a content of 0.2-10 weight% as further component of resin component (A).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a container for receiving chemical two-component mortar composition with resin component (A), which contains, as curable component, at least one free radical-curable, ethylenically unsaturated compound (a1) and a curing agent component (B), which is disposed separately from it so as to inhibit reaction and contains a curing agent for the resin of the resin component (A), with improved adhesion to the surface of moist boreholes in a mineral substrate, where the resin component (A) contains at least one methacryloxyalkyltrialkoxysilane (b1) in a content of 0.2-10 weight% as further component of resin component (A), where the container comprises at least two chambers, which are separated from one another and in which the resin component (A) and the curing agent component (B) are disposed separately from one another so as to inhibit reaction; and

(2) chemically fastening threaded rod anchors, reinforcing bars, threaded sleeves and/or screws in boreholes in a mineral substrate involving providing the composition; forming a borehole in the mineral substrate and cleaning the borehole; filling the borehole with the chemical two-component composition; and inserting one of the threaded rod anchor, reinforcing bar, threaded sleeves and screws.

USE - As chemical two-component mortar composition for chemically fastening threaded rod anchors, reinforcing bars, threaded sleeves and/or screws in boreholes in a mineral substrate (claimed) such as concrete, natural stone, and plaster.

ADVANTAGE - The composition achieves high load values of the immobilization. The composition results in general increase in the performance of the system i.e. the robustness of the system i.e. the retention of the high load values achieved even in the case of moist boreholes and in the case of poor cleaning of the boreholes introduced into the mineral substrates.

MANUAL CODE: CPI: A04-H00H; A08-C01; A08-M01D; A12-R01A; L02-D01;
L02-D05

TECH

INORGANIC CHEMISTRY - Preferred Components: The inorganic filler is quartz, glass, corundum, porcelain, pottery, barium sulfate, gypsum, plaster of Paris, talcum and/or chalk in the form of sands, flours or molded objects (preferably quartz, glass, corundum, porcelain, pottery, barium sulfate, gypsum, plaster of Paris, talcum and/or chalk in the form of fibers or spheres). The curing agent component (B), as curing agent for the resin of the resin component (A), contains at least one organic peroxide (preferably dibenzoyl peroxide, methyl ethyl ketone peroxide, t-butyl perbenzoate, cyclohexanone peroxide, lauryl peroxide, cumene hydroperoxide and/or t-butylperoxy-2-ethylhexanoate).

POLYMERS - Preferred Components: The resin component (A), as a further component, contains at least one methacryloxyalkyltrialkoxysilane of formula $\text{CH}_3\text{-C(=CH}_2\text{)-C(O)-O-(CH}_2\text{)}_n\text{-Si(OR)}_3$. The resin component (A), as a further component, contains at least one of methacryloxymethyltrimethoxysilane, methacryloxyethyltrimethoxysilane, methacryloxypropyltrimethoxysilane, methacryloxymethyltriethoxysilane, methacryloxyethyltriethoxysilane and methacryloxypropyltriethoxysilane. The resin component (A), as a further component (c1), contains at least one reacted diluent selected from hydroxypropyl(meth)acrylate, 1,2-dihydroxybutane di(meth)acrylate, trimethylolpropane tri(meth)acrylate, 2-ethylhexyl (meth)acrylate, phenylethyl (meth)acrylate, tetrahydrofurfuryl (meth)acrylate, ethyl

triglycol (meth)acrylate, N,N-dimethylaminoethyl (meth)acrylate, N,N-dimethylaminomethyl (meth)acrylate, 1,4-dihydroxybutane di(meth)acrylate, acetoacetoxyethyl (meth)acrylate, 1,2-dihydroxyethane di(meth)acrylate, isobornyl (meth)acrylate, diethylene glycol di(meth)acrylate, methoxy polyethylene glycol mono(meth)acrylate, trimethyl cyclohexyl (meth)acrylate, 2-hydroxyethyl (meth)acrylate, dicyclopentenyl hydroxyethyl (meth)acrylate and/or tricyclopentadienyl di(meth)acrylate, bisphenol A (meth)acrylate, novolac epoxy di(meth)acrylate, di-((meth)acryloyl maleoyl) tricyclo-5.2.1.02.6-decane, dicyclopentenyl hydroxyethyl crotonate, 3-(meth)acryloyl hydroxymethyl tricyclo-5.2.1.02.6-decane, 3-methyl cyclopentadienyl (meth)acrylate, isobornyl (meth)acrylate and/or decalyl 2-(meth)acrylate. The resin component (A), as free radical-curable ethylenically unsaturated compound (a1), contains at least one of hydroxybutyl vinyl ether, diethylene glycol divinyl ether, triethylene glycol divinyl ether, 3-aminopropyl vinyl ether, t-amyl vinyl ether, butyl vinyl ether, cyclohexane dimethanol monovinyl ether, cyclohexyl vinyl ether, 3-diethylamino propyl vinyl ether, diethylene glycol monovinyl ether, dodecyl vinyl ether, ethylene glycol butyl vinyl ether, ethylene glycol monovinyl ether, 2-ethylhexyl vinyl ether, ethyl vinyl ether, hexane diol monovinyl ether, hydroxybutyl vinyl ether, methyl vinyl ether, octadecyl vinyl ether, polyethylene glycol 520 methyl vinyl ether, triethylene glycol methyl vinyl ether, butane diol divinyl ether, cyclohexane dimethanol divinyl ether, diethylene glycol divinyl ether, dipropylene glycol divinyl ether, ethylene glycol divinyl ether, hexane diol divinyl ether, neopentyl glycol divinyl ether, tetraethylene glycol divinyl ether, triethylene glycol divinyl ether, trimethylol propane trivinyl ether, tripropylene glycol divinyl ether, pentaerythritol tetravinyl ether, allyl ether, di(propylene glycol) allyl ether (meth)acrylate (mixture of isomers), diethylene glycol monoallyl ether, pentaerythritol allyl ether, trimethylol propane allyl ether, trimethylol propane diallyl ether, allyl benzyl ether, bisphenol A diallyl ether, allyl butyl ether, allyl ethyl ether, allyl glycidyl ether, allyl phenyl ether, allyl propyl ether, poly(epichlorohydrin co-ethylene oxide co-allyl glycidyl ether), ethylene glycol monoallyl ether, tetraethylene glycol diallyl ether, ethoxylated bisphenol A di(meth)acrylate with a degree of ethoxylation of 2-10 (preferably 2-4), difunctional, trifunctional or higher functional urethane (meth)acrylate oligomers and mixtures of these curable components. The resin component (A), as free radical-curable, ethylenically unsaturated compound (a1), contains a difunctional urethane (meth)acrylate oligomer with 2 to 30 urethane (meth)acrylate units. The resin component (A) contains an accelerator (d1) for the curing agent. The resin component (A), as accelerator (d1), contains an aromatic amine and/or a salt of cobalt, manganese, tin, vanadium or cerium (preferably N,N-dimethylaniline, N,N-diethylaniline, N,N-diisopropanol para-toluidine, N,N-diisopropylidene-para-toluidine, N,N-dimethyl-para-toluidine, N,N-diethylol-para-toluidine, N,N-diisopropylol-meta-toluidine, N,N-bis(2-hydroxyethyl)-toluidine, N,N-bis(2-hydroxyethyl)-xylidine, N-methyl-N-hydroxy-ethyl para-toluidine, cobalt octoate, cobalt naphthenate, vanadium (IV) acetyl acetate and/or vanadium (V) acetyl acetate). The resin component (A) contains, aside from the resin, additionally also a hydraulically setting or polycondensable inorganic compound and the curing agent component (B) contain aside from the curing agent, additionally also water. The container is formed as one of cartridge pressure cylinder, and foil pouch.

R1=1 or 2C alkyl;

n=1 to 3.

Preferred Composition: The mortar composition

comprises at least one inorganic filler in the resin component (A) and/or

in the curing agent component (B).

ABEX EXAMPLE - A two-component mortar composition (test) based on a urethane methacrylate oligomer was prepared as follows: a resin component of the two-component mortar composition was prepared (containing (wt.%): difunctional urethane methacrylate oligomer (37.16), 1,4-dihydroxybutane dimethacrylate (18.98), hydroxypropyl methacrylate (23.91), acetoacetoxy ethyl methacrylate (5), trimethyl propane trimethacrylate (3.70), tetraethylene glycol dimethacrylate (5.79), para-toluidine as accelerator (2.90), inhibitor (tert-butyl pyrocatechol) (0.56) and methacryloxymethyltrimethoxysilane (2)) and was homogenized with 35.5 g of S32 (RTM: quartz sand), 18.5 g of an aluminate cement, 0.4 g of boric acid and 3.7 g of hydrophobic, pyrogenic silica in the Dissolver under vacuum into a pasty composition free of air bubbles. The resin components obtained was each transferred to a cartridge. As curing agent component of the two-component mortar composition, an aqueous suspension, which contained 47.9 wt.% of finely ground quartz, 21.87 wt.% of argillaceous earth, 20.23 wt.% of dicumyl peroxide and 9.19 wt.% of water, glycerin and sodium dihydrogen phosphate as desensitizing agent and 80 wt.% of a thixotroping agent as remainder, was used and also filled into cartridge. A control composition was prepared in a similar manner as test except that methacryloxymethyl-trimethoxysilane was not used. The test/control composition was evaluated for load values achieved. For determining the load values achieved with the test/control composition, high strength, M12 threaded rod anchor was used, which was doweled into borehole with diameter of 14 mm and depth of 110 mm with the test composition. The bond stress was measured. The bond stress (N/mm²) for test/control composition was: for dry concrete = 24 plus minus 1/20.6 plus minus 1.5; and for moist concrete = 21.9 plus minus 0.9/17.8 plus minus 0.3. It was observed that not only the adhesion of the threaded rod anchors was improved by the test composition in the case of dry and well cleaned concrete but there was distinctly lesser decrease in the load values.

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L125 ANSWER 10 OF 15 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 2009-N54565 [200966] WPIX
 TITLE: New multi-functionalized silsesquioxane derivatives useful for the preparation of the nanocomposite material, which is useful e.g. as a polymerizable resin for biologically compatible materials, coatings and lenses
 DERWENT CLASS: A14; A26; A82; A89; A96; D21; G02; L03; V04; V07
 INVENTOR: SELLINGER A; SOH M S; YAP U J A
 PATENT ASSIGNEE: (SGST-C) AGENCY SCI TECHNOLOGY & RES
 COUNTRY COUNT: 121

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2009110848	A1	20090911	(200966)*	EN	71	[13]

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2009110848	A1	WO 2008-SG73	20080304

PRIORITY APPLN. INFO: WO 2008-SG73 20080304
 INT. PATENT CLASSIF.:

IPC ORIGINAL: C07F0007-00 [I,A]; C07F0007-00 [I,C]; C08F0230-00 [I,C];
 C08F0230-08 [I,A]; C08F0283-00 [I,C]; C08F0283-12 [I,A];
 C08G0077-00 [I,C]; C08G0077-38 [I,A]; C08K0003-00 [I,C];
 C08K0003-34 [I,A]; C08K0005-00 [I,C]; C08K0005-5435 [I,A]
 ECLA: C07F0007-21; C08K0005-5425; C08K0005-5435

BASIC ABSTRACT:

WO 2009110848 A1 UPAB: 20091015

NOVELTY - Multi-functionalized silsesquioxane derivatives (I), are new.

DETAILED DESCRIPTION - Multi-functionalized silsesquioxane derivatives of formula $((R1)a(R2)b(R3)c(R4)d)((R5)nSinOz)$ (I), are new.

R1-R4 = polymerizable residues consisting of 2-20C-alkene, 2-20C-alkyne, allyl, allyl glycidyl ether, 2-20C-alkylalkene, alkylalkynes, acrylates, methacrylates, benzoxazines, epoxides or oxetanes;

R5 = $(C(R1a)(R2a))_q$, $((C(R1a)(R2a))_qN(R3a))$, $((CH2)mO)_r$ or $((Si(R4a)2O))_s$;

R1a-R4a = H, 1-20C-alkyl, or 6-10C-aryl;

m = 1-10;

q, r, s = 0-10;

n = 6-14;

z = 1.5n or 2.5n; and either

a-d = 0-n; or

a+b+c+d = n.

Provided that: when z is 1.5n, then at least one of R1-R4 is not $(CH2)3OC(O)C(CH2)(CH3)$, $(CH2)3OC(O)C(CH2)(H)$, $CH(CH2)$, butoxymethyl-cyclopropane or 3-propyl-7-oxa-bicyclo(4.1.0)heptane. An INDEPENDENT CLAIM is included for a nanocomposite material comprising polymerizable monomers comprising (I) as co-monomer, and a curing system.

USE - (I) are useful for the preparation of the nanocomposite material. The nanocomposite material is useful as a polymerizable resin for biologically compatible materials; coatings; lenses; and plastics, where the nanocomposite material is applied to a site of a tooth and subsequently cured (all claimed).

ADVANTAGE - (I) provide nanocomposite material with a low shrinking property of less than 4, preferably 0.25-0.5. (I) exhibit improved solubility, adhesion, copolymerization, grafting and blending property; stability; crosslink density and packing; and fracture resistance. (I) can be synthesized easily in high yields. MANUAL CODE: CPI: A04-A; A05-A; A12-L02A; A12-V02B; D08-A02; D08-A03;

G02-A01A; G02-A02C; G02-A02D; G02-A02G; L03-G05; L03-H02;
 L03-H04E8; L03-J02

EPI: V04-X01B; V07-F01A1; V07-F01B1; V07-F02A

TECH

INORGANIC CHEMISTRY - Preferred Components: The nanocomposite material further comprises at least a filler, which is silica, quartz, silica glass, strontium silicate, strontium borosilicate, lithium silicate, lithium alumina silicate, amorphous silica, ammoniated or deammoniated calcium phosphate, tricalcium phosphate alumina, zirconia, tin oxide, titania, apatites, hydroxyapatites, modified hydroxyapatite compositions, bismuth oxide, barium sulfate and/or bismuth subcarbonate; and a therapeutic agent, which is an antibacterial agent and/or a remineralization agent, preferably of calcium compounds, fluorides, sodium and potassium monofluorophosphate, zinc compounds, chlorohexidine, halogenated diphenyl ether and phenolic antibacterial compounds. The silica glass comprises strontium, barium, zinc, boron, yttrium, aluminoborosilicate glass, strontium-alumino-fluoro-silicate glass, colloidal glass or other fluoride releasing glasses.

ORGANIC CHEMISTRY - Preferred Components: The amine is a tertiary amine consisting of triethylamine, triphenylamine, ethyl 4-(dimethylamino)benzoate, 2-(4-(dimethylamino)phenyl)ethanol, N,N-dimethyl-p-toluidine, bis(hydroxyethyl)-p-toluidine,

dimethylaminoethyl methacrylate or diethylaminoethyl methacrylate. The cationic initiators can be incorporated to the nanocomposite to allow for a dual cure system, where the epoxy ring can be opened to compensate for volumetric shrinkage for (I).

POLYMERS - Preparation (Disclosed): Preparation of (I) comprises reacting n moles of silicon compound of formula $(\text{Si}(\text{OR})_4)$ (II) and n moles of tetramethylammonium hydroxide (III) to obtain n moles of silicon amine compound of formula $((\text{SinO}(2.5))(\text{ON}(\text{CH}_3)_4)_n)$ (IV), and reacting (IV) with n moles of silicon chloride compound of formula $((\text{Cl})\text{Si}(\text{R}_4\text{a})_2(\text{H}))$ (V) to obtain n moles of $((\text{SinO}(2.5n))(\text{Si}(\text{R}_4\text{a})_2(\text{H}))_n)$ (representative of (I)). Preferred Components: The polymerizable monomers further comprise bisphenylglycidyl methacrylate, triethylene glycol dimethacrylate, urethane dimethacrylate, ethoxylated bisphenol-A-dimethacrylate, decanediol dimethacrylate, urethane tetramethacrylate, methyl methacrylate, 2-hydroxyethyl methacrylate, hexandiol methacrylate, dodecanediol dimethacrylate, bisphenol-A-dimethacrylate, 2,6-di-tert-butyl-4-methylphenol, 2-hydroxyethylmethacrylate and/or N,N-dimethyl-p-toluidine. The curing system is polymerization initiators, polymerization accelerators, stabilizers, ultraviolet light absorbers, cationic initiators and antioxidants. The polymerization accelerator is an amine, ammonia or an acid. The amount of (I) used in the nanocomposite material is 1-90, preferably about 20 wt.%.

ABEX DEFINITIONS - Preferred Definitions: - R1-R4 = ethenyl, propenyl, butenyl, 1,4-butadienyl, pentenyl, hexenyl, 4-methylhex-1-enyl, 4-ethyl-2-methylhex-1-enyl, $(\text{CH}_2)_w\text{-CH}(\text{CH}_2)$, $(\text{CH}_2)_w\text{C}(\text{CH}_3)(\text{CH}_2)$, di(propylene glycol)allyl ether methacrylate, propargyl methacrylate, 2-(methacryloyloxy)ethylester, allyl methacrylate, allyl acrylate, propargyl methacrylate, propargyl acrylate, 2-allyloxyethyl acrylate, 2-propargyloxyethyl acrylate, 1-hexenylacrylate, 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexanecarboxylate, 3,4-epoxy-2-methylcyclohexylmethyl-3,4-epoxy-2-methylcyclohexanecarboxylate, bis(3,4-epoxy-6-methylcyclohexylmethyl) adipate or 4-vinyl-cyclohexene epoxide, where R1 and R2 are preferably di(propylene glycol)allyl ether methacrylate, 4-vinyl-cyclohexene epoxide or propargyl methacrylate; - n = 8; - a = n-2; - b = 2; - n = 2.5n; and - w = 1-15.

SPECIFIC COMPOUNDS - 8 Compounds (I) are disclosed e.g. silsesquioxane derivatives of formulae (Ia)-(Va).

EXAMPLE - Octakis (dimethylsiloxy) silsesquioxane (1 g) and anhydrous toluene (10 ml) were added to a 50 ml round bottom flask equipped with a stir bar and air condenser under argon. The mixture was stirred for 5 minutes to allow for all octakis (dimethylsiloxy) silsesquioxane to dissolve. Di (propylene glycol) allyl ether methacrylate (2.14 g) followed by divinyltetramethyldisiloxane (0.01 ml of 2 mmol solution in anhydrous xylene) were then added drop wise into the flask. The mixture was allowed to stir at 55 degrees C for 24 hours. Reaction completion was monitored by the disappearance of the silicon hydrogen absorption peak at 2145 cm¹ using Fourier transform infrared spectroscopy. Small amount of excess reactant and solvent were removed effectively by vacuum evaporation technique using a high vacuum pump to obtain a viscous liquid of silsesquioxane derivative (Ia) (95%) .

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L125 ANSWER 11 OF 15 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 2009-K67601 [200947] WPIX
 TITLE: Coating composition, especially for
 scratch-proofing optical plastics substrates, comprises
 thermoplastic resin and acrylate-based, radiation
-hardenable resin component
 DERWENT CLASS: A14; A17; A28; A82; D18; G02; L01; L02; L03

10/596,007

INVENTOR: HSU L; LIU S; HSU L L; LIU S H
PATENT ASSIGNEE: (ETER-N) ETERNAL CHEM CO LTD
COUNTRY COUNT: 5

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 102008062805	A1	20090625	(200947)*	DE	11[0]	
JP 2009149897	A	20090709	(200947)	JA	34	
KR 2009069144	A	20090629	(200947)	KO		
US 20090163614	A1	20090625	(200947)	EN		
TW 2009027853	A	20090701	(201002)	ZH		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 102008062805	A1	DE 2008-102008062805	20081223
US 20090163614	A1	US 2008-339621	20081219
JP 2009149897	A	JP 2008-325809	20081222
KR 2009069144	A	KR 2008-132817	20081224
TW 2009027853	A	TW 2007-149732	20071224

PRIORITY APPLN. INFO: TW 2007-149732 20071224

INT. PATENT CLASSIF.:

IPC ORIGINAL: C08F0002-46 [I,C]; C08F0002-50 [I,A]; C08G0018-00 [I,C];
C08G0018-67 [I,A]; C08G0059-00 [I,C]; C08G0059-14 [I,A];
C08J0003-28 [I,A]; C08J0003-28 [I,C]; C09D0123-00 [I,A];
C09D0123-00 [I,C]; C09D0133-04 [I,C]; C09D0133-04 [I,A];
C09D0133-04 [I,C]; C09D0133-04 [I,A]; C09D0133-04 [I,C];
C09D0133-06 [I,A]; C09D0133-06 [I,C]; C09D0167-00 [I,A];
C09D0167-00 [I,C]; C09D0201-02 [I,A]; C09D0201-02 [I,C];
C09D0004-02 [I,C]; C09D0004-02 [I,A]; C09D0004-02 [I,C];
C09D0004-02 [I,A]; C09D0004-02 [I,C]; C09D0005-00 [I,A];
C09D0005-00 [I,C]; C09D0007-12 [I,A]; C09D0007-12 [I,C]

ECLA: C09D0133-08+B; C09D0167-00+B2

ICO: M08L0033:06; M08L0087:00

USCLASS NCLM: 522/040.000

NCLS: 522/042.000; 522/046.000; 522/064.000; 522/077.000;
522/078.000; 522/079.000; 522/081.000; 522/083.000;
522/090.000; 522/100.000; 522/111.000; 522/112.000

JAP. PATENT CLASSIF.:

MAIN/SEC.: C09D0123-00; C09D0133-04; C09D0167-00; C09D0201-02;
C09D0004-02; C09D0005-00 Z; C09D0007-12

MAIN: C09D0004-02

SECONDARY: C09D0123-00; C09D0133-04; C09D0167-00; C09D0201-02;
C09D0005-00 Z; C09D0007-12

FTERM CLASSIF.: 4J038; 4J038/CG13.2; 4J038/CH03.2; 4J038/CH04.2;
4J038/CH07.2; 4J038/CH12.2; 4J038/CH17.2; 4J038/CJ13.2;
4J038/FA11.1; 4J038/FA12.1; 4J038/FA14.1; 4J038/FA15.1;
4J038/FA25.1; 4J038/FA26.1; 4J038/FA28.1; 4J038/JA55;
4J038/JB01; 4J038/KA03; 4J038/KA12; 4J038/NA20;
4J038/PA17; 4J038/PC02; 4J038/PC03; 4J038/PC04;
4J038/PC06; 4J038/PC08; 4J038/PC09; 4J038/PC10

BASIC ABSTRACT:

DE 102008062805 A1 UPAB: 20090725

NOVELTY - A coating composition (I) comprises: (a) thermoplastic polycycloolefin, polyester and/or polyacrylate resin(s); and (b) 220-1000 (preferably 250-500) weight% based on (a) of a radiation-hardenable resin,

containing (b1) a radiation polymer containing mono- or polyfunctional acrylic monomer units, (b2) an oligomer with an ethylenically unsaturated group and (b3) a photoinitiator.

USE - The coating composition (I) is applied to substrates, specifically glass or especially plastics substrates for optical applications, to increase the hardness and protect the substrate against scratching. Typically (I) are applied to illumination devices such as illuminated advertizing panels, flat display hoardings or liquid crystal display devices. More generally (I) are applicable to a wide range of substrates, including ceramic tiles, wood, leather, stone, glass, metal, paper, plastics or fabrics. (I) are hardened e.g. by applying infrared light, visible light, nuclear radiation, radio waves or especially UV light; or by dual-cure methods using both radiation and heat.

ADVANTAGE - In comparison with analogous prior art compositions based on thermosetting (rather than thermoplastic) resins, (I) has superior stress buffering, adhesion and coating properties and can contain a higher amount of radiation- hardenable resin to increase the hardness. Optical substrates protected against scratching and damage with (I) retain high, distortion-free transparency. The coatings of (I) show high strength, toughness, heat resistance and hardness (generally having pencil hardness 3H or more).

MANUAL CODE: CPI: A04-F01A1; A04-G01E; A05-E01D1; A08-C01; A08-C07; A08-D01; A10-E01; A12-B01E; A12-B01G; A12-B01H; D07-B; G02-A02C; G02-A02D; G02-A02E; G02-A05; G02-A05C; G02-A05E; G02-A05K; L01-G04B; L01-L04; L02-A01; L02-G02; L03-G05; L03-G05A; L03-H03

TECH

ORGANIC CHEMISTRY - Preferred Photoinitiators: (b3) is benzophenone, benzoin, 2-hydroxy-2-methyl-1-phenylpropan-1-one, 2,2-dimethoxy-1,2-diphenylethan-1-one, 1-hydroxy-cyclohexyl-phenyl ketone and/or 2,4,6-trimethylbenzoyl diphenyl phosphine oxide, especially benzophenone or 1-hydroxycyclohexyl-phenyl ketone.

POLYMERS - Preferred Thermoplastics: The resin (a) contains hydroxy, carboxy, amido, urethane and/or epoxy functional groups(s), and is preferably a polyacrylate resin, specifically containing units derived one or more of (meth)acrylic acid and methyl, ethyl, butyl, isobutyl, isooctyl, cyclohexyl, glycidyl, hydroxyethyl and hydroxypropyl (meth)acrylates. (a) has a glass transition temperature of more than 80 (preferably 80-250) degrees C and an average molecular weight of 10000-2000000. Preferred Hardenable Resins: The mono- or

polyfunctional acrylic monomer in (b1) is a (meth)acrylate ester monomer, preferably an acrylate, urethane acrylate, polyester acrylate, epoxyacrylate or especially a methacrylate monomer. The unsaturated oligomer (b2) is an acrylate oligomer, selected from urethane acrylates, epoxy acrylates, novolac-epoxy acrylates, polyester acrylates and/or acrylates; and has a molecular weight of 1000-10000. Preferred Composition: (I) optionally also contains: (c) an antistatic agent selected from ethoxyglycerol fatty acid esters, quaternary amino compounds, aliphatic amine derivatives, polyethylene oxide, siloxanes and alcohol derivatives; (d) inorganic particles selected from zinc oxide, zirconium oxide, silicon dioxide, titanium oxide, aluminum oxide, calcium sulfate, barium sulfate and/or calcium carbonate; (e) scattering particles, of (meth)acrylate, urethane and/or silicone resin; and/or (f) solvents selected from aromatic compounds, esters and/or ketones.

ABEX EXAMPLE - A radiation-hardenable resin preparation (100 g; 80% solids) was prepared by stirring together 15 g ethyl acetate, 10 g dipentaerythritol hexaacrylate, 2 g trimethylolpropane trimethacrylate, 14 g pentaerythritol triacrylate, 34.5 g Etercure 6415-100 (RTM: aliphatic urethane hexaacrylate) and 4.5 g 1-hydroxycyclohexyl-phenyl ketone. A scratch-preventing coating

10/596,007

composition (Ia) (85 g ; 30% solids) was prepared by mixing 25 g ethyl acetate, 24.86 g of the radiation-hardenable resin preparation, 30.14 g Eterac 7365-s-30 (RTM: thermoplastic polymethacrylic polyol resin; solids content 30%; glass transition temperature Tg 95 degrees C) and 4.2 g GMB-36M-AS (RTM: antistatic agent; 20% solids). (Ia) was applied to a polyethylene terephthalate substrate at a thickness of 188 μ m, dried for 1 minute at 188 degrees C and dried for 4 seconds under UV-illumination (250 mJ/cm²) at room temperature to give a scratch-resistant coating having a thickness of ca. 6 μ m and a pencil hardness of 3H.
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L125 ANSWER 12 OF 15 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
ACCESSION NUMBER: 2009-R45244 [201001] WPIX
TITLE: Coating material for use as surface coating on water-proof roll comprises deionized water, sulfate, polymerizer, acrylate, methacrylic acid, organofluorine, organosilicon, and/or styrene at specified weight range
DERWENT CLASS: A13; A14; A25; A82; G02
INVENTOR: CHEN W; ZHAO W
PATENT ASSIGNEE: (CHEN-I) CHEN W
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
CN 101575475	A	20091111	(201001)*	ZH	16	[0]

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
CN 101575475	A	CN 2009-10086095	20090605

PRIORITY APPLN. INFO: CN 2009-10086095 20090605

INT. PATENT CLASSIF.:

IPC ORIGINAL: C09D0133-06 [I,A]; C09D0133-06 [I,C]; C09D0133-10 [I,C];
C09D0133-12 [I,A]; C09D0005-29 [I,A]; C09D0005-29 [I,C]

BASIC ABSTRACT:

CN 101575475 A UPAB: 20100101

NOVELTY - A coating material comprises (pts.weight) deionized water (90-130) to comprise component A; deionized water (9-22), sulfate (0.5-1.5) and polymerizer (0.1-1) to comprise component B; deionized water (98-128.5), sulfate (0.5-5), and polymerizer (2.5-4.5) to comprise component C; and acrylate (150-260), methacrylic acid (3-10), organofluorine (5-20) and organosilicon (5-20), or acrylate (150-260), styrene (8-12), methacrylic acid (3-10), organofluorine (5-20) and organosilicon (5-20) to comprise component D.

DETAILED DESCRIPTION - A coating material comprises (pts.weight) deionized water (90-130) to comprise component A; deionized water (9-22), sulfate (0.5-1.5) and polymerizer (0.1-1) to comprise component B; deionized water (98-128.5), sulfate (0.5-5), and polymerizer (2.5-4.5) to comprise component C; and acrylate (150-260), methacrylic acid (3-10), organofluorine (5-20) and organosilicon (5-20), or acrylate (150-260), styrene (8-12), methacrylic acid (3-10), organofluorine (5-20) and organosilicon (5-20) to comprise component D. It is prepared by pre-emulsifying components C and D at 300-500 rpm to obtain white emulsion; heating component A to 75-80 degrees C, adding component B, continuously heating, and dripping obtained white emulsion when temperature reaches 75-90 degrees C for 120-180 minutes; continuously

heating for 60-120 minutes, then cooling to less than or equal to 40 degrees C, neutralizing to pH 6-8 using ammonia, and filtering using 100-mesh sieve to obtain polymer emulsion; separately adding water (70-110 g) in a container, stirring at 300-500 rpm, adding (g) disinfectant (1-5), antifoaming agent (5-10) and dispersant (2-8), stirring, adding inorganic filler (300-600 g) and nanocomposite material and colored paste (5-25), and dispersing at 1000-1200 rpm; and regulating speed to 300-500 rpm, adding polymer emulsion (300-600 g), stirring, regulating pH to 9 using ammonia, adding thickener (5-15 g), filtering, and discharging. An INDEPENDENT CLAIM is included for a method for preparing the coating material.

USE - A coating material for use as surface coating on water-proof roll (claimed).

ADVANTAGE - The coating material is uniformly applied on surface of water-proof roll, and has high tensile strength, large elongation, good weather resistance, good low-temperature resistance, excellent thermal resistance and stability. It can be prepared into different colors.

MANUAL CODE: CPI: A02-A03; A04-C04; A04-E10D; A04-F04; A04-F06E7;
A08-E01; A08-M06; A08-R01; A08-S01; A10-B03; A11-A03;
A11-B05D; A12-H11; A12-W14; G02-A02D

TECH

INORGANIC CHEMISTRY - Preferred Component: The sulfate is anhydrous sodium sulfate, potassium persulfate or ammonium persulfate. The inorganic filler comprises precipitated barium sulfate, porcelain clay, microsilica, figuline, calcium carbonate, titanium pigment, lithopone, kaolin, heavy calcium and/or talc powder. The nanocomposite material is titanium dioxide, silicon dioxide, or aluminum oxide.

ORGANIC CHEMISTRY - Preferred Component: The polymerizer is a surfactant comprising sodium dodecyl sulfate, dodecylbenzene sulfonic acid or polyoxyethylene octylphenyl ether. The acrylate is butyl acrylate or methyl methacrylate. The organosilicon is octamethylcyclotetrasiloxane or dimethylsiloxane. The organofluorine is hexafluorobutyl acrylate, hexafluorobutyl methacrylate, trifluorobutyl methacrylate or dodecafluoroheptyl methacrylate.

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L125 ANSWER 13 OF 15 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
ACCESSION NUMBER: 2008-H89129 [200850] WPIX
CROSS REFERENCE: 2009-R14934
TITLE: Powder material system useful for forming article e.g.
ceramic molds by three dimensional printing comprises dry
particulate material comprising insoluble filler, soluble
filler and transition metal catalyst; and a
non-aqueous binder fluid
DERWENT CLASS: A14; A17; A23; A25; A97; G02; G05; P42; T01
INVENTOR: WILLIAMS D X
PATENT ASSIGNEE: (ZZZZ-N) Z CORP
COUNTRY COUNT: 121

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20080138515	A1	20080612	(200850)*	EN	39	[18]
WO 2008073297	A2	20080619	(200850)	EN		
WO 2008073297	A3	20080821	(200857)	EN		
IN 2009KN02019	A	20090619	(200951)	EN		
EP 2089215	A2	20090819	(200955)	EN		
KR 2009090372	A	20090825	(200959)	KO		
CN 101568422	A	20091028	(200976)	ZH		
JP 2010512255	T	20100422	(201028)	JA	44	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20080138515	A1 Provisional	US 2006-873730P	20061208
US 20080138515	A1	US 2007-952727	20071207
CN 101568422	A	CN 2007-80048035	20071207
EP 2089215	A2	EP 2007-862625	20071207
WO 2008073297	A2	WO 2007-US25075	20071207
WO 2008073297	A3	WO 2007-US25075	20071207
IN 2009KN02019	A PCT Application	WO 2007-US25075	20071207
EP 2089215	A2 PCT Application	WO 2007-US25075	20071207
KR 2009090372	A PCT Application	WO 2007-US25075	20071207
CN 101568422	A PCT Application	WO 2007-US25075	20071207
KR 2009090372	A	KR 2009-714178	20071207
IN 2009KN02019	A	IN 2009-KN2019	20090528
JP 2010512255	T PCT Application	WO 2007-US25075	20071207
JP 2010512255	T	JP 2009-540311	20071207

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 2089215	A2 Based on	WO 2008073297 A
KR 2009090372	A Based on	WO 2008073297 A
CN 101568422	A Based on	WO 2008073297 A
JP 2010512255	T Based on	WO 2008073297 A

PRIORITY APPLN. INFO: US 2007-952727 20071207
 US 2006-873730P 20061208

INT. PATENT CLASSIF.:

MAIN: B29C067-00
 IPC ORIGINAL: B05D0007-00 [I,A]; B05D0007-00 [I,C]; B29C0067-00 [I,A];
 B29C0067-00 [I,C]; B29C0067-00 [I,C]; B29C0067-00 [I,A];
 B29C0067-00 [I,C]; C08K0003-00 [I,A]; C08K0003-00 [I,C];
 C08K0005-00 [I,C]; C08K0005-56 [I,A]; C08L0101-00 [I,A];
 C08L0101-00 [I,C]; C08L0029-00 [I,C]; C08L0029-14 [I,A];
 C08L0033-00 [I,C]; C08L0033-10 [I,A]; C09D0011-02 [I,A];
 C09D0011-02 [I,C]; C09D0011-10 [I,A]; C09D0011-10 [I,C]

ECLA: B29C0067-00L2F; B29C0067-00R6
 USCLASS NCLM: 427/222.000
 NCLS: 106/031.130; 106/031.600; 106/031.900; 524/556.000;
 524/588.000; 524/599.000; 524/612.000

JAP. PATENT CLASSIF.:

MAIN/SEC.: B29C0067-00; C08K0003-00; C08K0005-56; C08L0101-00;
 C08L0029-14; C08L0033-10
 MAIN: B29C0067-00
 SECONDARY: C08K0003-00; C08K0005-56; C08L0101-00; C08L0029-14;
 C08L0033-10

FTERM CLASSIF.:

4F213; 4J002; 4F213/AA21; 4F213/AB03.A; 4F213/AB04.A;
 4J002/AB04.X; 4F213/AB07.A; 4F213/AB10; 4F213/AB11.C;
 4F213/AB12.A; 4F213/AB16.A; 4F213/AB19.A; 4F213/AB23.A;
 4F213/AC04.A; 4F213/AC05; 4J002/B03.X; 4J002/B03.X;
 4J002/BE06.W; 4J002/BG05.W; 4J002/BG06.W; 4J002/BK00.X;
 4J002/CK02.X; 4J002/CL00.X; 4J002/CP18.3; 4J002/DE10.8;
 4J002/DE13.8; 4J002/DE14.6; 4J002/DE23.6; 4J002/DE24.8;
 4J002/DG02.8; 4J002/DG04.8; 4J002/DG05.6; 4J002/DJ00.6;
 4J002/DJ00.8; 4J002/DL00.6; 4J002/DL00.8; 4J002/EC04.9;
 4J002/EH04.9; 4J002/EH14.9; 4J002/EX03.9; 4J002/EZ00.7;

4J002/FD01.6; 4J002/FD01.X; 4J002/FD09.8; 4J002/FD20.7;
 4F213/WA25; 4F213/WA52; 4F213/WA53; 4F213/WA56;
 4F213/WA58; 4F213/WA87; 4F213/WB01; 4F213/WL15;
 4F213/WL23; 4F213/WL25; 4F213/WL42; 4F213/WL93;
 4F213/WL96

BASIC ABSTRACT:

US 20080138515 A1 UPAB: 20090811

NOVELTY - A powder material system (S1) for three dimensional printing comprises a dry particulate material (M1) that comprises an insoluble filler, a soluble filler, and a transition metal catalyst; where the dry particulate material is suitable for use in three dimensional printing to form an article comprising several layers including a reaction product of the particulate material and a non-aqueous fluid that contacts the particulate material during three dimensional printing.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a kit comprising: (i) the dry particulate material (M1); and (ii) a fluid binder comprising: a (meth)acrylate monomer, at least one of an allyl ether functional monomer or oligomer, and organic hydroperoxide; and

(2) forming an article by three-dimensional printing involving: providing a dry particulate material comprising several adjacent particles, and the particulate material comprising a transition metal catalyst; and applying to at least some of the particles a fluid binder in an amount to bond those particles together to define at least a portion of the article; where the fluid binder comprises a (meth)acrylate monomer, (meth)acrylate oligomer, organic hydroperoxide, and at least one of an allyl ether functional monomer or oligomer.

USE - As a powder material system for forming articles by three dimensional printing (claimed), articles are prototype articles, structural ceramics, or ceramic shell molds for metal casting, directly from computer-generated design data.

ADVANTAGE - The articles produced by the particulate material formulations and the binder formulation exhibited improved properties such as high flexural strength, and toughness. The formulation provides strong parts without need for infiltration during printing process. MANUAL CODE: CPI: A02-A01; A02-A06; A04-A03; A04-F06B; A04-F06C;

A08-R01; A11-B16; A12-W12G; G05-F

EPI: T01-J13

TECH

INORGANIC CHEMISTRY - Preferred Components: The transition metal catalyst is selected from cobalt (II) octoate, cobalt (II) naphthenate, vanadium (II) octoate, and/or manganese naphthenate. The particulate material further comprises a pigment in an amount of 0.5-5 wt.%. The pigment is selected from zinc oxide, zinc sulfide, barium sulfate, titanium dioxide, zirconium silicate, lead carbonate, and hollow borosilicate glass spheres.

ORGANIC CHEMISTRY - Preferred Components: The particulate material further comprises a processing aid in an amount of 0.01-2 wt.%. The processing aid is selected from mineral oil, propylene glycol di(caprylate/caprate), petroleum jelly, propylene glycol, diisobutyl phthalate, diisononyl phthalate, polyalkyleneoxide modified heptamethyltrisiloxanes, polyalkyleneoxide modified polydimethylsiloxanes, secondary alcohol ethoxylated hydrocarbons, and/or hydrogenated hydrocarbon resins.

POLYMERS - Preferred Components: An internal angle of friction of the particulate material (M1) is 40-70 degrees . A critical surface tension of the particulate material is greater than 20 dynes/cm. The particulate material comprises (wt.%): the insoluble filler (50-90), the soluble filler (10-50), and the transition metal catalyst (0.01-0.5).

The insoluble filler is selected from solid glass spheres, hollow glass spheres, solid ceramic spheres, hollow ceramic spheres, potato starch,

tabular alumina, calcium sulfate hemihydrate, calcium sulfate dehydrate, calcium carbonate, ultra-high molecular weight polyethylene, polyamide, polycyclic olefins, polyurethane, and/or polypropylene. The soluble filler is selected from methyl methacrylate polymers, ethyl methacrylate polymers, butyl methacrylate polymers, and/or polyvinylbutyral. The soluble filler has a molecular weight of 100000-500000 g/mol. The fluid binder comprises (wt.%): (meth)acrylate monomer (40-95), allyl ether functional monomer/oligomer (5-25), and organic hydroperoxide (0.5-5). A contact angle of the fluid binder is less than 25 degrees when in contact with the particulate material. A 1-mm penetration hardening rate of the dry particulate material on application of the fluid binder is 0.01-1/minute. The fluid binder further comprises a (meth)acrylate oligomer in an amount of 10-40 wt.%. The fluid binder further comprises a surfactant. Preferred Process: The transition metal catalyst induces decomposition of the organic hydroperoxide to generate free radicals and the free radicals initiate anaerobic polymerization of the (meth)acrylate monomer and oligomer, and aerobic polymerization of the at least one of the allyl ether functional monomer or oligomer.

ABEX EXAMPLE - A particulate material formulation for a powder material system comprising (wt.%): Potter's Spheringlass 2530 CP03 (RTM: glass spheres) (83.18); Lucite Elvacite 2014 (RTM: 15.44); Kronos 2310 (RTM: titanium dioxide) (1.05); light mineral oil (0.23); and cobalt octoate (65% in mineral spirit) (0.1), was prepared. A fluid binder composition comprising (wt.%): polyethylene glycol dimethacrylate (Mn: 330 g/mol) (47.5); isobornyl acrylate (29.85); Sartomer CN9101 (RTM: allylic urethane oligomer) (14.93); trimethylol ethoxylate triacrylate (Mn: 428) (4.98); Luperox CU90 (RTM: cumene hydroperoxide) (2.19); 4-methoxyphenol (0.05); and dimethylacetoacetamide (0.5); was also prepared. A three-point flexural strength of a bar 5 mm thick, 5.7 mm wide, and 50 mm long created from the application of fluid binder on the particulate material on a three-dimensional printer, supported on a two-point span spaced at a distance of 40 mm. The force to break the test part with the force applied at the center of the 40 mm span was used to calculate an estimate of flexural strength. The distance to break the test part was also recorded which estimated the amount of strain the bar endured. Higher flexural distances at break, as the strength increased, was related to increased toughness of the article. The flexural test bars were printed on a three dimensional printer by applying the fluid binder through the jetting assembly over the particulate material at a layer thickness of 100 microns. The binder fluid was deposited selectively and uniformly at each layer to occupy 32 vol.% of the flexural test part. The flexural test parts were allowed to solidify for 1 hour before they were extracted from the build bed of the printer and cured at 60 degrees C in oven for 12 hours. The flexural properties of the particulate material composition was measured. It was observed that the article made from the formulation showed a flexural strength of 44.9 plus minus 4.2 MPa at 90% confidence, and flexural distance of 1.1 plus minus 0.1 mm at break at 99% confidence, whereas the article made from a particulate formulation containing a soluble filler having low molecular weight of 33000 g/mol showed a flexural strength of 15.9 plus minus 1.7 MPa at 90% confidence and flexural distance of 0.4 plus minus 0.1 mm at break at 99% confidence. The results suggested that soluble fillers with molecular weights less than 100000 g/mol exhibited lower flexural properties than soluble fillers with molecular weights greater than 100000 g/mol.

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

10/596,007

ACCESSION NUMBER: 2006-549969 [200656] WPIX
 CROSS REFERENCE: 2006-568567
 DOC. NO. CPI: C2006-171855 [200656]
 DOC. NO. NON-CPI: N2006-441169 [200656]
 TITLE: Antistatic agent, useful to provide films and plastics,
 comprises an inorganic pigment having a polysiloxane
 treatment
 DERWENT CLASS: A25; A60; E11; P42
 INVENTOR: MAY D D; MAY D
 PATENT ASSIGNEE: (DUPO-C) DU PONT DE NEMOURS & CO E I; (DUPO-C) DU PONT DE
 NEMOURS&CO E I
 COUNTRY COUNT: 111

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2006076716	A1	20060720	(200656)*	EN	24[0]	
AU 2006204734	A1	20060720	(200780)	EN		
EP 1856189	A1	20071121	(200780)	EN		
US 20080119598	A1	20080522	(200835)	EN		
AU 2006204734	B2	20101118	(201077)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2006076716	A1	WO 2006-US1548	20060113
US 20080119598	A1 Provisional	US 2005-643980P	20050114
AU 2006204734	A1	AU 2006-204734	20060113
EP 1856189	A1	EP 2006-718601	20060113
EP 1856189	A1	WO 2006-US1548	20060113
US 20080119598	A1	WO 2006-US1548	20060113
US 20080119598	A1	US 2007-795098	20070710
AU 2006204734	B2	AU 2006-204734	20060113

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2006204734	A1 Based on	WO 2006076716 A
EP 1856189	A1 Based on	WO 2006076716 A
AU 2006204734	B2 Based on	WO 2006076716 A

PRIORITY APPLN. INFO: US 2005-643980P 20050114
 US 2007-795098 20070710

INT. PATENT CLASSIF.:

IPC ORIGINAL: B01D0019-02 [I,C]; B01D0019-04 [I,A]; B05B0011-04 [I,A];
 B05B0011-04 [I,C]; B05D0001-00 [I,A]; B05D0001-00 [I,C];
 B05D0001-02 [I,A]; B05D0001-02 [I,C]; B05D0001-36 [I,A];
 B05D0001-36 [I,C]; B05D0001-38 [I,A]; B05D0001-38 [I,C];
 C08G0077-00 [I,C]; C08G0077-04 [I,A]; C08G0077-42 [I,A];
 C08K0003-00 [I,C]; C08K0003-30 [I,A]; C08K0009-00 [I,C];
 C08K0009-06 [I,A]; C09C0001-36 [I,A]; C09C0001-36 [I,C];
 B01D0019-02 [I,C]; B05B0011-04 [I,C]; B05D0001-00 [I,C];
 B05D0001-02 [I,C]; B05D0001-36 [I,C]; B05D0001-38 [I,C];
 C08G0077-00 [I,C]; C08K0009-00 [I,C]; C09C0001-36 [I,C]

ECLA: C08K0005-00P9; C08L0023-02+B4S; C08L0101-00+B4S
 USCLASS NCLM: 524/262.000
 NCLS: 524/423.000; 524/425.000; 524/431.000; 524/432.000;

524/445.000; 524/451.000; 524/493.000; 525/326.500;
525/475.000

BASIC ABSTRACT:

WO 2006076716 A1 UPAB: 20101130

NOVELTY - Antistatic agent (I) comprises an inorganic pigment treated with specific polysiloxane compound having a bis(trimethylsiloxy) methyilsilanylpropyl-terminated alkylene oxide structure.

DETAILED DESCRIPTION - Antistatic agent (I) comprises an inorganic pigment treated with a polysiloxane of formula (A).

$R1-O-(CHR2CHR3-O)_n-(CH2)_3-Si(O-Si((CH3)_3)_2)-CH3$ (A)

$R1-R3 = H$ or 1-20C alkyl; and

$n = 1-40$.

INDEPENDENT CLAIMS are also included for:

(1) a film comprising a thermoplastic polymer and (I);

(2) the preparation of (I);

(3) a shaped thermoplastic polymer article comprising (I) and a thermoplastic polymer; and

(4) a method of preparing a pigmented thermoplastic polymer composition for forming thermoplastic products having reduced surface resistance comprising mixing an inorganic pigment with (I) to form a pigment having antistatic treatment, and dispersing the pigment having antistatic treatment into a thermoplastic polymer melt to form the pigmented thermoplastic polymer composition.

USE - The antistatic agent is useful for mixing with thermoplastic polymers to provide films and shaped thermoplastic polymer articles (claimed).

ADVANTAGE - The film has a surface resistivity of less than $10E14$ ohms/cm² (claimed). The thermoplastic polymer provides both opacity and viscosity attributes to a polymer blend that can be utilized to form shaped articles. The thermoplastic polymer composition provides thermoplastic products having reduced surface resistance.

MANUAL CODE:

CPI: A08-M01; A08-M04; A11-A03; A12-S06; E05-E02;
E31-P01; E31-P02D; E31-P03; E31-P05B; E34-D03A; E34-D03D;
E35-C02; E35-C04; E35-K02; E35-Q

TECH

INORGANIC CHEMISTRY - Preferred Components: The inorganic pigment is zinc sulfide, titanium dioxide (preferred), calcium carbonate, barium sulfate, zinc oxide, molybdenum sulfide, silica, talc or clay.

ORGANIC CHEMISTRY - Preparation (Claimed): Preparation of (I) comprises metering a polysiloxane and optionally a silane into a flow restrictor, having an inlet and an outlet, a motive gas, to create a zone of turbulence at the outlet of the flow restrictor for atomizing the polysiloxane compound and optionally the silane to form an atomized liquid; and contacting an inorganic pigment with the atomized liquid to form (I). The inorganic pigment is silanized (which has the formula of $RxSi(Ra)_4-x$).

R = non-hydrolyzable aliphatic group of formula $-CH_2-CH_2-CH_2-N(CH_3)_2-R'X$;

R' = 1-20C hydrocarbon;

X = Cl, Br or HSO_4 ;

Ra = hydrolyzable group; and

$x = 1-3$.

The silane is 3-trimethoxysilyl propyl octyl dimethyl ammonium chloride, 3-trimethoxysilyl propyl octyl dimethyl ammonium chloride, 3-trimethoxysilyl propyl decyl dimethyl ammonium chloride, 3-trimethoxysilyl propyl hexadecyl dimethyl ammonium chloride or 3-trimethoxysilyl propyl octadecyl dimethyl ammonium chloride.

POLYMERS - The siloxane is a polymerization product of propylene oxide and ethylene oxide and a siloxane having a formula of $CH_3-Si(O-Si-((CH_3)_3)_2)-((CH_2)_3)-OH$. The thermoplastic polymer is polymers of ethylenically unsaturated monomers, polyvinyls, polyvinyl esters,

polystyrene, acrylic homopolymers and copolymers, phenolics, alkyds, amino resins, epoxy resins, polyamides, polyurethanes, phenoxy resins, polysulfones, polycarbonates, polyesters and chlorinated polyesters, polyethers, acetal resins, polyimides or polyoxyethylenes. The polymers of ethylenically unsaturated monomers are polyolefins (polyethylene, polypropylene, polybutylene, and copolymers of ethylene with higher olefins or polyvinyl acetate).

ABEX DEFINITIONS - Preferred Definitions: - R1 = H or CH3; and - R2, R3 = H.

EXAMPLE - Pigmentary titanium dioxide (1000 g) was treated with a 70% solution of trimethoxysilyl propyl octadecyl ammonium chloride (14 g) in a V-cone blender. To this pigment solution was further added a polyethoxylated polysiloxane (10 g). The sample was heat cured for 1 hour at 100degreesC to remove residual solvents. The treated pigment was dispersed into polyethylene (70 wt.%) using a Banbury Farrel mixer. This material (master batch), was then let down to titanium dioxide (25 wt.%) in a cast film die to produce a 4 mil film (10.16 micron).

AN.S DCR-88364

CN.P BARIUM SULFATE

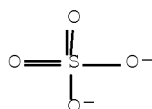
SDCN R01739

SDRN 1739

CM 1

Ba

CM 2



L125 ANSWER 15 OF 15 WPIX COPYRIGHT 2011 THOMSON REUTERS on STN
 ACCESSION NUMBER: 2006-568567 [200658] WPIX
 CROSS REFERENCE: 2006-549969
 DOC. NO. CPI: C2006-176658 [200658]
 TITLE: Thermoplastic polymer composition useful in manufacturing film, i.e. blown films and shaped thermoplastic polymer article, e.g. tubing, pipes, and wire coatings, comprises mixture of thermoplastic polymer and polysiloxane
 DERWENT CLASS: A26; A32; A60; E11
 INVENTOR: MAY D D
 PATENT ASSIGNEE: (DUPO-C) DU PONT DE NEMOURS & CO E I
 COUNTRY COUNT: 111

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2006076714	A1	20060720	(200658)*	EN	20[0]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2006076714	A1	WO 2006-US1545	20060113

PRIORITY APPLN. INFO: US 2005-643980P 20050114

INT. PATENT CLASSIF.:

IPC ORIGINAL: C08G0077-00 [I,C]; C08G0077-04 [I,A]; C08G0077-42 [I,A]

ECLA: C08L0023-02+B4S

BASIC ABSTRACT:

WO 2006076714 A1 UPAB: 20060911

NOVELTY - A thermoplastic polymer composition comprises a mixture of a thermoplastic polymer and a polysiloxane. The polysiloxane imparts an anti-electrostatic property to the thermoplastic polymer composition.

DETAILED DESCRIPTION - A thermoplastic polymer composition comprises a mixture of a thermoplastic polymer and a polysiloxane. The polysiloxane has structure (1). The polysiloxane imparts an anti-electrostatic property to the thermoplastic polymer composition.

R1-R3 = H or 1-20C alkyl group; and
n = 1-40.

USE - The invention is useful in manufacturing film, i.e. blown films and shaped thermoplastic polymer article, e.g. tubing, pipes, and wire coatings (claimed).

ADVANTAGE - The invention imparts antistatic properties to polymers and resulting plastic parts. It provides good surface resistivity.

MANUAL CODE: CPI: A08-S04; A10-E22A; A12-E02A; A12-S06; E05-E02;
E31-P03; E31-P05B; E34-D03A; E34-D03D; E35

TECH

INORGANIC CHEMISTRY - Preferred Components: The inorganic pigment is zinc sulfide, titanium dioxide, calcium carbonate, barium sulfate, zinc oxide, molybdenum sulfide, silica, talc, or clay. The inorganic pigment is preferably titanium dioxide or silanized.

Me = methyl.

POLYMERS - Preferred Components: The polysiloxane is a polymerization product of propylene oxide and ethylene oxide and a siloxane of structure (2). The thermoplastic polymer composition includes inorganic pigment. The thermoplastic polymer is ethylenically unsaturated monomers; polyvinyls; polyvinyl esters; polystyrene; acrylic homopolymers and copolymers; phenolics; alkyds; amino resins; epoxy resins; polyamides; polyurethanes; phenoxy resins; polysulfones; polycarbonates; polyesters and chlorinated polyesters; polyethers; acetal resins; polyimides; or polyoxyethylenes. The polymers of ethylenically unsaturated monomers are polyolefins. The polyolefin is polyethylene, polypropylene, polybutylene, or copolymers of ethylene with higher olefins or polyvinyl acetate. The antistatic agent is present at 0.01-20 wt.% based on the total weight of the thermoplastic polymer composition.

ABEX DEFINITIONS - Preferred Definitions: - R1 = H (preferred) or Me group; - R2 and R3 = H; and - n = 1-40

EXAMPLE - R-104 (RTM: pigmentary titanium dioxide) (1000g) was treated 70% solution of trimethoxysilyl propyl octadecyl ammonium chloride (14g) in a V-cone blender. To this pigment solution, Q2-5211 (RTM: polyethoxylated polysiloxane) (10g) was added. The sample was heat cured for 1 hour at 100degreesC to remove residual solvents. The treated pigment was dispersed into polyethylene at 70 wt.% using a Banbury Farrel mixer. This masterbatch was then let down to 25 wt. % titanium dioxide in a cast film die to produce a 4 mil film. The surface resistivity of the films was measured by placing a section of

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the film into a surface resistance meter fitted with a concentric ring probe. All values are the average of 5 readings. The surface resistivity of the film was measured and found to be 3.6 E11 ohms/cm2.

AN.S DCR-88364

CN.P BARIUM SULFATE

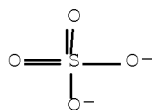
SDCN R01739

SDRN 1739

CM 1

Ba

CM 2



=> d que nos 173

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L4      1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  7727-43-7/RN
L7      1 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  77-92-9/RN
L9      STR
L10     STR
L12     69317 SEA FILE=REGISTRY SSS FUL (L9 AND L10)
L14     7138 SEA FILE=REGISTRY SPE=ON  ABB=ON  PLU=ON  L12 AND SI/ELS
L15     QUE  SPE=ON  ABB=ON  PLU=ON  POPPE, A?/AU,AUTH
L16     QUE  SPE=ON  ABB=ON  PLU=ON  MIKOLAJETZ, D?/AU,AUTH
L17     QUE  SPE=ON  ABB=ON  PLU=ON  WESTHOFF, E?/AU,AUTH
L18     QUE  SPE=ON  ABB=ON  PLU=ON  HARDINGHAUS, F?/AU,AUTH
L19     QUE  SPE=ON  ABB=ON  PLU=ON  PARK, J?/AU,AUTH
L20     QUE  SPE=ON  ABB=ON  PLU=ON  KOHLER, K?/AU,AUTH
L21     QUE  SPE=ON  ABB=ON  PLU=ON  STAHL, R?/AU,AUTH
L22     QUE  SPE=ON  ABB=ON  PLU=ON  GLENDE, D?/AU,AUTH
L23     QUE  SPE=ON  ABB=ON  PLU=ON  KOEHLER, K?/AU,AUTH
L26     QUE  SPE=ON  ABB=ON  PLU=ON  COMBIN? OR COMBN OR MIXTURE
      OR ADMIX? OR MIXED OR MIXING OR BLEND? OR MIXT?
L27     QUE  SPE=ON  ABB=ON  PLU=ON  COMPOSITION OR CMPSN OR COMP
      OS?
L28     QUE  SPE=ON  ABB=ON  PLU=ON  FORMULAT?
L29     QUE  SPE=ON  ABB=ON  PLU=ON  CURE OR CURING OR CURED
L30     QUE  SPE=ON  ABB=ON  PLU=ON  CURABLE
L31     QUE  SPE=ON  ABB=ON  PLU=ON  BINDER
L32     QUE  SPE=ON  ABB=ON  PLU=ON  (BARIUM(1W) (SULFATE OR SULPH
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L33     QUE  SPE=ON  ABB=ON  PLU=ON  DEAGGLOMERAT? OR (DE(1W)AGGL
      OMERAT?)
L34     QUE  SPE=ON  ABB=ON  PLU=ON  DISPERS?
L35     QUE  SPE=ON  ABB=ON  PLU=ON  AGGLOMER? OR REAGGLOMER?
L36     QUE  SPE=ON  ABB=ON  PLU=ON  CRYST?
L37     QUE  SPE=ON  ABB=ON  PLU=ON  ANTAGON? OR INHIBIT? OR PROH
      IBIT? OR PREVENT? OR DIMINISH? OR REDUC? OR IMPED? OR DEP
      RESS? OR SUPPRESS? OR REPRESS? OR OBSTRUCT? OR RESTRICT?
      OR TERMINAT? OR BLOCK? OR STOP? OR RETARD? OR SLOW? OR DE
      LAY? OR LIMIT? OR DECREAS? OR LOWER? OR LESSEN? OR MINIMI
      Z? OR MINIMIS? OR DISRUPT?
L38     QUE  SPE=ON  ABB=ON  PLU=ON  IMPAIR? OR HINDER?
L39     QUE  SPE=ON  ABB=ON  PLU=ON  CARBOXYLIC
L40     QUE  SPE=ON  ABB=ON  PLU=ON  CITRIC
L41     QUE  SPE=ON  ABB=ON  PLU=ON  PHOSPHORIC OR PHOSPHINIC
L42     QUE  SPE=ON  ABB=ON  PLU=ON  SULFINIC OR SULPHINIC OR SUL
      FONIC OR SULPHONIC
L43     QUE  SPE=ON  ABB=ON  PLU=ON  EPOXIDE
L44     QUE  SPE=ON  ABB=ON  PLU=ON  ?SILAN? OR ORAGANOSILAN? OR
      CARBOSILAN? OR ?SILYL?
L45     QUE  SPE=ON  ABB=ON  PLU=ON  ELECTROSTATIC?
L46     QUE  SPE=ON  ABB=ON  PLU=ON  OSMOTIC?
L47     QUE  SPE=ON  ABB=ON  PLU=ON  ?CATALY?
L48     QUE  SPE=ON  ABB=ON  PLU=ON  RADIATION
L49     QUE  SPE=ON  ABB=ON  PLU=ON  BLOCK? OR SHIELD?
L50     QUE  SPE=ON  ABB=ON  PLU=ON  PHOSPHONIC
L51     QUE  SPE=ON  ABB=ON  PLU=ON  CRYSTALLIZATION+PFT,OLD,NEW/
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L52     QUE  SPE=ON  ABB=ON  PLU=ON  "DISPERSING AGENTS"+PFT,OLD,
      NEW,NT/CT
L53     QUE  SPE=ON  ABB=ON  PLU=ON  "CARBOXYLIC ACIDS"+PFT,OLD,N
      EW/CT

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L54	3047	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L14
L55	17474	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L4
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L57	2	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L54 AND L32
L58	9756	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L55 AND (L26 OR L27 OR L28)
L60	94	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L58 AND (L33 OR L35)
L61	13	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L60 AND L31
L62	31	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L60 AND (L34 OR L52)
L63	6	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L61 AND L62
L64	89493	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L7
L65	6	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L60 AND L64
L66	127	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L58 AND L64
L67	24	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L66 AND (L34 OR L52)
L68	38	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	(L56 OR L57) OR L61 OR L63 OR L65 OR L67
L69	38	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L68 AND ((L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50) OR (L51 OR L52 OR L53))
L70	38	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	(L68 OR L69)
L71	4	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L70 AND (L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23)
L72	0	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	L1 NOT L71
L73	4	SEA FILE=HCAPLUS	SPE=ON	ABB=ON	PLU=ON	(L71 OR L72)

=> d que 1102

L15	QUE	SPE=ON	ABB=ON	PLU=ON	POPPE, A?/AU,AUTH
L16	QUE	SPE=ON	ABB=ON	PLU=ON	MIKOLAJETZ, D?/AU,AUTH
L17	QUE	SPE=ON	ABB=ON	PLU=ON	WESTHOFF, E?/AU,AUTH
L18	QUE	SPE=ON	ABB=ON	PLU=ON	HARDINGHAUS, F?/AU,AUTH
L19	QUE	SPE=ON	ABB=ON	PLU=ON	PARK, J?/AU,AUTH
L20	QUE	SPE=ON	ABB=ON	PLU=ON	KOHLER, K?/AU,AUTH
L21	QUE	SPE=ON	ABB=ON	PLU=ON	STAHL, R?/AU,AUTH
L22	QUE	SPE=ON	ABB=ON	PLU=ON	GLEND, D?/AU,AUTH
L23	QUE	SPE=ON	ABB=ON	PLU=ON	KOEHLER, K?/AU,AUTH
L26	QUE	SPE=ON	ABB=ON	PLU=ON	COMBIN? OR COMBN OR MIXTURE OR ADMIX? OR MIXED OR MIXING OR BLEND? OR MIXT?
L27	QUE	SPE=ON	ABB=ON	PLU=ON	COMPOSITION OR CMPSN OR COMP OS?
L28	QUE	SPE=ON	ABB=ON	PLU=ON	FORMULAT?
L29	QUE	SPE=ON	ABB=ON	PLU=ON	CURE OR CURING OR CURED
L30	QUE	SPE=ON	ABB=ON	PLU=ON	CURABLE
L31	QUE	SPE=ON	ABB=ON	PLU=ON	BINDER
L32	QUE	SPE=ON	ABB=ON	PLU=ON	(BARIUM(1W)(SULFATE OR SULPHATE)) OR BASO4
L33	QUE	SPE=ON	ABB=ON	PLU=ON	DEAGGLOMERAT? OR (DE(1W)AGGLOMERAT?)
L34	QUE	SPE=ON	ABB=ON	PLU=ON	DISPERS?
L35	QUE	SPE=ON	ABB=ON	PLU=ON	AGGLOMER? OR REAGGLOMER?
L36	QUE	SPE=ON	ABB=ON	PLU=ON	CRYST?
L37	QUE	SPE=ON	ABB=ON	PLU=ON	ANTAGON? OR INHIBIT? OR PROHIBIT? OR PREVENT? OR DIMINISH? OR REDUC? OR IMPED? OR DEPRESS? OR SUPPRESS? OR REPRESS? OR OBSTRUCT? OR RESTRICT? OR TERMINAT? OR BLOCK? OR STOP? OR RETARD? OR SLOW? OR DELAY? OR LIMIT? OR DECREAS? OR LOWER? OR LESSEN? OR MINIMIZE? OR MINIMIS? OR DISRUPT?
L38	QUE	SPE=ON	ABB=ON	PLU=ON	IMPAIR? OR HINDER?
L39	QUE	SPE=ON	ABB=ON	PLU=ON	CARBOXYLIC

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L40      QUE  SPE=ON  ABB=ON  PLU=ON  CITRIC
L41      QUE  SPE=ON  ABB=ON  PLU=ON  PHOSPHORIC OR PHOSPHINIC
L42      QUE  SPE=ON  ABB=ON  PLU=ON  SULFINIC OR SULPHINIC OR SUL
      FONIC OR SULPHONIC
L43      QUE  SPE=ON  ABB=ON  PLU=ON  EPOXIDE
L44      QUE  SPE=ON  ABB=ON  PLU=ON  ?SILAN? OR ORAGANOSILAN? OR
      CARBOSILAN? OR ?SILYL?
L45      QUE  SPE=ON  ABB=ON  PLU=ON  ELECTROSTATIC?
L46      QUE  SPE=ON  ABB=ON  PLU=ON  OSMOTIC?
L47      QUE  SPE=ON  ABB=ON  PLU=ON  ?CATALY?
L48      QUE  SPE=ON  ABB=ON  PLU=ON  RADIATION
L49      QUE  SPE=ON  ABB=ON  PLU=ON  BLOCK? OR SHIELD?
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L78      QUE  SPE=ON  ABB=ON  PLU=ON  (R05257 OR F83 OR F84 OR F85
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L79      QUE  SPE=ON  ABB=ON  PLU=ON  G0260/PLE
L81      1 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  88364/DCSE
L82      8978 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L81/DCR OR DCR-88364/DCR
      OR R01739/DCN
L83      5950 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  1739/DRN
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L97      4623 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L77 AND L78 AND L79
L98      54 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L84 AND L97
L99      53 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L98 AND (L26 OR L27 OR
      L28)
L100     20 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L99 AND ((L29 OR L30) OR
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L101     20 SEA FILE=WPIX SPE=ON  ABB=ON  PLU=ON  L100 AND (L26 OR L27 OR
      L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR
      L37 OR L38 OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR
      L46 OR L47 OR L48 OR L49 OR L50)
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=> d his l111

(FILE 'MEDLINE, BIOSIS, EMBASE, CABA, AGRICOLA, IFICDB, DRUGU, VETU'
ENTERED AT 10:46:31 ON 12 JAN 2011)

L111 3 S L110 AND L15-L23

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L17     QUE  SPE=ON  ABB=ON  PLU=ON  WESTHOFF, E?/AU,AUTH
L18     QUE  SPE=ON  ABB=ON  PLU=ON  HARDINGHAUS, F?/AU,AUTH
L19     QUE  SPE=ON  ABB=ON  PLU=ON  PARK, J?/AU,AUTH
L20     QUE  SPE=ON  ABB=ON  PLU=ON  KOHLER, K?/AU,AUTH
L21     QUE  SPE=ON  ABB=ON  PLU=ON  STAHL, R?/AU,AUTH
L22     QUE  SPE=ON  ABB=ON  PLU=ON  GLENDE, D?/AU,AUTH
L23     QUE  SPE=ON  ABB=ON  PLU=ON  KOEHLER, K?/AU,AUTH
L26     QUE  SPE=ON  ABB=ON  PLU=ON  COMBIN? OR COMBN OR MIXTURE
      OR ADMIX? OR MIXED OR MIXING OR BLEND? OR MIXT?
L27     QUE  SPE=ON  ABB=ON  PLU=ON  COMPOSITION OR CMPSN OR COMP
      OS?
L28     QUE  SPE=ON  ABB=ON  PLU=ON  FORMULAT?
L29     QUE  SPE=ON  ABB=ON  PLU=ON  CURE OR CURING OR CURED
L30     QUE  SPE=ON  ABB=ON  PLU=ON  CURABLE

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L31      QUE  SPE=ON  ABB=ON  PLU=ON  BINDER
L32      QUE  SPE=ON  ABB=ON  PLU=ON  (BARIUM(1W)(SULFATE OR SULPH
ATE)) OR BASO4
L33      QUE  SPE=ON  ABB=ON  PLU=ON  DEAGGLOMERAT? OR (DE(1W)AGGL
OMERAT?)
L34      QUE  SPE=ON  ABB=ON  PLU=ON  DISPERS?
L35      QUE  SPE=ON  ABB=ON  PLU=ON  AGGLOMER? OR REAGGLOMER?
L106     15396 SEA L4
L108     1356 SEA (L106 OR L32) AND (L26 OR L27 OR L28) AND L34
L109     67 SEA L108 AND (L33 OR L35)
L110     3 SEA L109 AND L31 AND ((L29 OR L30) OR HARDEN?)
L111     3 SEA L110 AND (L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR
L22 OR L23)
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=> d his 1119

(FILE 'HCAPLUS, WPIX, PASCAL, JAPIO, INSPEC, COMPENDEX, APOLLIT, RAPRA, CEABA-VTB, BIOENG, BIOTECHDS, DRUGB, VETB, LIFESCI, SCISEARCH, CONFSCI, DISSABS, RDISCLOSURE' ENTERED AT 10:51:21 ON 12 JAN 2011)

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=> d que 1119

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L17      QUE  SPE=ON  ABB=ON  PLU=ON  WESTHOFF, E?/AU,AUTH
L18      QUE  SPE=ON  ABB=ON  PLU=ON  HARDINGHAUS, F?/AU,AUTH
L19      QUE  SPE=ON  ABB=ON  PLU=ON  PARK, J?/AU,AUTH
L20      QUE  SPE=ON  ABB=ON  PLU=ON  KOHLER, K?/AU,AUTH
L21      QUE  SPE=ON  ABB=ON  PLU=ON  STAHL, R?/AU,AUTH
L22      QUE  SPE=ON  ABB=ON  PLU=ON  GLENDE, D?/AU,AUTH
L23      QUE  SPE=ON  ABB=ON  PLU=ON  KOEHLER, K?/AU,AUTH
L26      QUE  SPE=ON  ABB=ON  PLU=ON  COMBIN? OR COMBN OR MIXTURE
OR ADMIX? OR MIXED OR MIXING OR BLEND? OR MIXT?
L27      QUE  SPE=ON  ABB=ON  PLU=ON  COMPOSITION OR CMPSN OR COMP
OS?
L28      QUE  SPE=ON  ABB=ON  PLU=ON  FORMULAT?
L29      QUE  SPE=ON  ABB=ON  PLU=ON  CURE OR CURING OR CURED
L30      QUE  SPE=ON  ABB=ON  PLU=ON  CURABLE
L31      QUE  SPE=ON  ABB=ON  PLU=ON  BINDER
L32      QUE  SPE=ON  ABB=ON  PLU=ON  (BARIUM(1W)(SULFATE OR SULPH
ATE)) OR BASO4
L33      QUE  SPE=ON  ABB=ON  PLU=ON  DEAGGLOMERAT? OR (DE(1W)AGGL
OMERAT?)
L34      QUE  SPE=ON  ABB=ON  PLU=ON  DISPERS?
L35      QUE  SPE=ON  ABB=ON  PLU=ON  AGGLOMER? OR REAGGLOMER?
L36      QUE  SPE=ON  ABB=ON  PLU=ON  CRYST?
L37      QUE  SPE=ON  ABB=ON  PLU=ON  ANTAGON? OR INHIBIT? OR PROH
IBIT? OR PREVENT? OR DIMINISH? OR REDUC? OR IMPED? OR DEP
RESS? OR SUPPRESS? OR REPRESS? OR OBSTRUCT? OR RESTRICT?
OR TERMINAT? OR BLOCK? OR STOP? OR RETARD? OR SLOW? OR DE
LAY? OR LIMIT? OR DECREAS? OR LOWER? OR LESSEN? OR MINIMI
Z? OR MINIMIS? OR DISRUPT?
L38      QUE  SPE=ON  ABB=ON  PLU=ON  IMPAIR? OR HINDER?
L39      QUE  SPE=ON  ABB=ON  PLU=ON  CARBOXYLIC
L40      QUE  SPE=ON  ABB=ON  PLU=ON  CITRIC
L41      QUE  SPE=ON  ABB=ON  PLU=ON  PHOSPHORIC OR PHOSPHINIC
L42      QUE  SPE=ON  ABB=ON  PLU=ON  SULFINIC OR SULPHINIC OR SUL
FONIC OR SULPHONIC
L43      QUE  SPE=ON  ABB=ON  PLU=ON  EPOXIDE
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10/596,007

L44 QUE SPE=ON ABB=ON PLU=ON ?SILAN? OR ORAGANOSILAN? OR
CARBOSILAN? OR ?SILYL?
L45 QUE SPE=ON ABB=ON PLU=ON ELECTROSTATIC?
L46 QUE SPE=ON ABB=ON PLU=ON OSMOTIC?
L47 QUE SPE=ON ABB=ON PLU=ON ?CATALY?
L48 QUE SPE=ON ABB=ON PLU=ON RADIATION
L49 QUE SPE=ON ABB=ON PLU=ON BLOCK? OR SHIELD?
L50 QUE SPE=ON ABB=ON PLU=ON PHOSPHONIC
L113 29647 SEA L32 AND (L26 OR L27 OR L28)
L114 774 SEA L113 AND L31 AND L34
L115 14 SEA L114 AND (L33 OR L35)
L116 5 SEA L115 AND ((L29 OR L30) OR HARDEN?)
L117 5 SEA L116 AND (L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR
L33 OR L34 OR L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR
L42 OR L43 OR L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50)
L118 5 SEA (L116 OR L117)
L119 2 SEA L118 AND (L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21 OR
L22 OR L23)

=> dup rem 173 1102 1111 1119

L102 HAS NO ANSWERS

DUPLICATE IS NOT AVAILABLE IN 'RDISCLOSURE'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE

FILE 'HCAPLUS' ENTERED AT 11:08:52 ON 12 JAN 2011

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'IFICDB' ENTERED AT 11:08:52 ON 12 JAN 2011

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FILE 'WPIX' ENTERED AT 11:08:52 ON 12 JAN 2011

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PROCESSING COMPLETED FOR L73

PROCESSING COMPLETED FOR L102

PROCESSING COMPLETED FOR L111

PROCESSING COMPLETED FOR L119

L126 7 DUP REM L73 L102 L111 L119 (2 DUPLICATES REMOVED)

ANSWERS '1-4' FROM FILE HCAPLUS

ANSWERS '5-7' FROM FILE IFICDB

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 11:09:13 ON 12 JAN 2011

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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Jan 7, 2011 (20110107/UP).

=> d ibib ed abs hitind hitstr 1-4

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, IFICDB' - CONTINUE? (Y)/N:y

L126 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2011 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:523563 HCAPLUS Full-text

DOCUMENT NUMBER: 143:61464

TITLE: Hardenable materials, containing
deagglomerated barium
sulfate, method for production and use thereof

INVENTOR(S): Poppe, Andreas; Mikolajetz, Dunja;
Westhoff, Elke; Hardinghaus, Ferdinand
; Park, Jai Won; Koehler, Karl;
Stahl, Rainer; Glende, David
Christopher

PATENT ASSIGNEE(S): BASF Coatings A.-G., Germany

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005054380	A2	20050616	WO 2004-EP53031	20041111
WO 2005054380	A3	20050721		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 102004010201	A1	20050707	DE 2004-102004010201	20040302
EP 1711564	A2	20061018	EP 2004-804546	20041111
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS			
US 20070167535	A1	20070719	US 2007-596007	20070130
PRIORITY APPLN. INFO.:			DE 2003-10357114	A 20031206
			DE 2004-102004010201A	20040302
			WO 2004-EP53031	W 20041111

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 17 Jun 2005

AB The invention relates to hardenable materials containing deagglomerated barium sulfate which contains at least one dispersing agent and nanoparticles with a primary particle size < 0.5 m, preferably < 0.1 m, in particular < 30 nm, said nanoparticles containing at least one crystallization inhibitor, and to the use thereof for manufacture of coatings, adhesives, sealants, moldings, and films. These materials exhibit good flow and give cured materials with high gloss, no tension cracks, distortion-free surfaces, and high abrasion resistance. A typical composition for a transparent coating contained 5 parts 380.26:664.27 glycidyl methacrylate-3-methacryloyloxypropyltrimethoxysilane copolymer, 0.5 parts 1%

aqueous solution of deagglomerated BaSO₄ containing Melpers 0030 (polyether polycarboxylate) dispersant and citric acid crystallization inhibitor and 0.6 parts flow-control agent. IPCI C09D0007-00 [ICM,7]

IPCR C09C0001-02 [I,C*]; C09C0001-02 [I,A]; C09D0005-02 [I,C*]; C09D0005-02 [I,A]; C09D0005-32 [I,C*]; C09D0005-32 [I,A]; C09D0007-12 [I,C*]; C09D0007-12 [I,A]

CC 42-5 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38

ST curable coating deagglomerated barium sulfate filler; polyether polycarboxylate dispersant barium sulfate filler curable material; citric acid crystn inhibitor barium sulfate filler curable material; glycidyl methacrylate methacryloyloxypropyltrimethoxysilane copolymer barium sulfate filler; film curable deagglomerated barium sulfate filler; molding curable deagglomerated barium sulfate filler; sealant curable deagglomerated barium sulfate filler; adhesive curable deagglomerated barium sulfate filler

IT Coating materials

(abrasion-resistant; hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystallization inhibitors for coatings, adhesives, sealants, and moldings)

IT Sulfates, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(alkyl, crystallization inhibitors; hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystallization inhibitors for coatings, adhesives, sealants, and moldings)

IT Sulfonic acids, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(arenesulfonic, esters and salts, crystallization inhibitors; hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystn . inhibitors for coatings, adhesives, sealants, and moldings)

IT Adhesives

Dispersing agents

Plastic films

Sealing compositions

(hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystn . inhibitors for coatings, adhesives, sealants, and moldings)

IT Molded plastics, miscellaneous

RL: MSC (Miscellaneous)

(hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystn . inhibitors for coatings, adhesives, sealants, and moldings)

IT Carboxylic acids, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(hydroxy, poly-, crystallization inhibitors; hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystn . inhibitors for coatings, adhesives, sealants, and moldings)

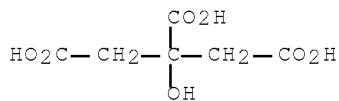
IT Crystallization

(inhibitors; hardenable materials containing

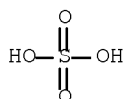
- deagglomerated barium sulfate containing dispersing agents and crystallization inhibitors for coatings, adhesives, sealants, and moldings)
- IT Polyethers, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(polycarboxylates, dispersants; hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystallization inhibitors for coatings, adhesives, sealants, and moldings)
- IT Carboxylic acids, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(polycarboxylic, hydroxy-containing, crystallization inhibitor; hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystn . inhibitors for coatings, adhesives, sealants, and moldings)
- IT 77-92-9, Citric acid, uses 9003-01-4, Polyacrylic acid
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(crystallization inhibitor; hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystallization inhibitors for coatings, adhesives, sealants, and moldings)
- IT 853998-45-5, Melpers 0030
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(dispersing agent; hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystallization inhibitors for coatings, adhesives, sealants, and moldings)
- IT 7727-43-7P, Barium sulfate
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystn . inhibitors for coatings, adhesives, sealants, and moldings)
- IT 56486-71-6P, Glycidyl methacrylate-3-methacryloyloxypropyltrimethoxysilane copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystn . inhibitors for coatings, adhesives, sealants, and moldings)
- IT 36465-90-4, Diphosphonic acid
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(hydroxy-containing, crystallization inhibitor; hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystn . inhibitors for coatings, adhesives, sealants, and moldings)
- IT 77-92-9, Citric acid, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(crystallization inhibitor; hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystallization inhibitors for coatings, adhesives, sealants, and moldings)

10/596,007

RN 77-92-9 HCAPLUS
CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



IT 7727-43-7F, Barium sulfate
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystn . inhibitors for coatings, adhesives, sealants, and moldings)
RN 7727-43-7 HCAPLUS
CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)

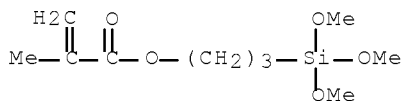


● Ba

IT 56486-71-6P, Glycidyl methacrylate-3-methacryloyloxypropyltrimethoxysilane copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (hardenable materials containing deagglomerated barium sulfate containing dispersing agents and crystn . inhibitors for coatings, adhesives, sealants, and moldings)
RN 56486-71-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-oxiranylmethyl ester, polymer with 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (CA INDEX NAME)

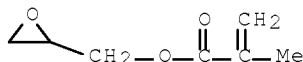
CM 1

CRN 2530-85-0
CMF C10 H20 O5 Si



CM 2

CRN 106-91-2
CMF C7 H10 O3



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD
(4 CITINGS)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L126 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2011 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2005:523543 HCAPLUS Full-text

DOCUMENT NUMBER: 143:60748

TITLE: Epoxy resin having improved flexural impact strength
and elongation at rupture

INVENTOR(S): Stahl, Rainer; Park, Jai Won;
Hardinghaus, Ferdinand; Glende, David
Christopher; Koehler, Karl

PATENT ASSIGNEE(S): Solvay Barium Strontium G.m.b.H., Germany

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005054357	A1	20050616	WO 2004-EP13613	20041201
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10357115	A1	20050707	DE 2003-10357115	20031206
EP 1699864	A1	20060913	EP 2004-803385	20041201
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS			
CN 1890314	A	20070103	CN 2004-80036277	20041201
CN 100390225	C	20080528		
JP 2007513230	T	20070524	JP 2006-541875	20041201
KR 2006125834	A	20061206	KR 2006-7013528	20060705
US 20070232725	A1	20071004	US 2007-581684	20070423
US 7811668	B2	20101012		
PRIORITY APPLN. INFO.:			DE 2003-10357115	A 20031206
			WO 2004-EP13613	W 20041201

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 17 Jun 2005

AB The invention relates to epoxy resins that contain deagglomerated barium sulfate having an average particle size of smaller 0.5 m and that are characterized by improved flexural impact strength and elongation at rupture. The deagglomerated BaSO4 contains a crystallization inhibitor and a dispersant. The inventive epoxy resins are suitable as composite materials or binders in boat building, in wind energy installations, in tubes, for containers or in aircraft construction, especially in composite materials that contain glass fibers or carbon fibers.

IPC1 C08K0009-00 [ICM,7]; C09C0001-00 [ICS,7]; C08K0003-30 [ICS,7]; C08K0003-00 [ICS,7,C*]

IPCR C08K0003-00 [I,C*]; C08K0003-30 [I,A]; C08K0009-00 [I,C*]; C08K0009-00 [I,A]; C09C0001-02 [I,C*]; C09C0001-02 [I,A]

CC 37-6 (Plastics Manufacture and Processing)

ST barium sulfate flexural impact strength breaking elongation enhancement epoxy; carbon fiber reinforced barium sulfate filled epoxy resin; glass fiber reinforced barium sulfate filled epoxy resin; aircraft barium sulfate filled epoxy resin; container barium sulfate filled epoxy resin; tube barium sulfate filled epoxy resin; wind energy app barium sulfate filled epoxy resin; ships barium sulfate filled epoxy resin; dispersant crystn inhibitor additive barium sulfate filler epoxy resin

IT Composites

Dispersing agents

(epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)

IT Epoxy resins, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)

IT Carbon fibers, uses

Glass fibers, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)

IT Aircraft

(epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture for aircraft)

IT Automobiles

(epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture for automobiles)

IT Containers

(epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture for containers)

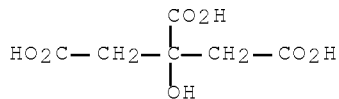
IT Ships

(epoxy resin containing barium sulfate with

- crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture for ships)
- IT Pipes and Tubes
(epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture for tubes)
- IT Crystallization
(inhibitors; epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)
- IT Polyethers, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(polycarboxylates, dispersants; epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)
- IT 77-92-9, Citric acid, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(crystallization inhibitor; epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)
- IT 853998-45-5, Melpers 0030
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(dispersant; epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)
- IT 9003-04-7, Dispex N40
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(dispersants; epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)
- IT 7727-43-7P, Barium sulfate
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)
- IT 854045-99-1P, Epilox M 730 854046-46-1P, Epilox M 888 854053-20-6P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)
- IT 77-92-9, Citric acid, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(crystallization inhibitor; epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)
- RN 77-92-9 HCAPLUS

10/596,007

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)

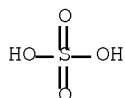


IT 7727-43-7P, Barium sulfate

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (epoxy resin containing barium sulfate with crystallization inhibitor and dispersant for improved flexural impact strength and elongation at rupture)

RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L126 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2006:1283512 HCAPLUS Full-text

DOCUMENT NUMBER: 146:28436

TITLE: Nanoparticle-containing macrocyclic oligoester

INVENTOR(S): Koehler, Karl; Hardinghaus, Ferdinand; Park, Jai Won; Glende, David-Christopher; Nietzel, Klaus

PATENT ASSIGNEE(S): Solvay Infra Bad Hoenningen G.m.b.H., Germany

SOURCE: Ger. Offen., 15pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 102005025720	A1	20061207	DE 2005-102005025720	20050604
WO 2006131493	A1	20061214	WO 2006-EP62854	20060602

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ,

NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

EP 1891149 A1 20080227 EP 2006-763475 20060602

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR

JP 2008542491 T 20081127 JP 2008-514115 20060602

US 20100197838 A1 20100805 US 2007-916394 20071203

KR 2008035560 A 20080423 KR 2008-7000177 20080103

PRIORITY APPLN. INFO.: DE 2005-102005025720A 20050604

WO 2006-EP62854 W 20060602

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 08 Dec 2006

AB Macrocyclic oligoesters containing dispersed deagglomerated BaSO₄ particles of size <0.5 μ m are manufactured by polymerization of a dicarboxylic acid or dicarboxylate ester with polyols in a solvent in the presence of catalysts and particulate mixts. containing BaSO₄ and crystallization inhibitors coated with dispersants have groups that are reactive with the polymers. IPCI C08L0067-02 [I,A]; C08L0067-00 [I,C*]; C08K0009-04 [I,A]; C08K0009-00

[I,C*]; C08K0003-30 [I,A]; C08K0003-00 [I,C*]; B01J0013-04 [I,A];

B01F0017-52 [I,A]; C09C0001-02 [I,A]; C09C0003-08 [I,A]; C09C0003-04

[I,A]; C08G0063-16 [I,A]; C08G0063-183 [I,A]; C08G0063-00 [I,C*];

C01F0011-46 [I,A]; C01F0011-00 [I,C*]

IPCR C08L0067-00 [I,C]; C08L0067-02 [I,A]; B01F0017-52 [I,C]; B01F0017-52

[I,A]; B01J0013-04 [I,C]; B01J0013-04 [I,A]; C01F0011-00 [I,C];

C01F0011-46 [I,A]; C08G0063-00 [I,C]; C08G0063-16 [I,A]; C08G0063-183

[I,A]; C08K0003-00 [I,C]; C08K0003-30 [I,A]; C08K0009-00 [I,C];

C08K0009-04 [I,A]; C09C0001-02 [I,C]; C09C0001-02 [I,A]; C09C0003-04

[I,C]; C09C0003-04 [I,A]; C09C0003-08 [I,C]; C09C0003-08 [I,A]

CC 37-6 (Plastics Manufacture and Processing)

ST dispersing deagglomerated barium sulfate macrocyclic oligoester; dispersant coated deagglomerated barium sulfate crystn inhibitor mixt; crystn inhibitor barium sulfate dispersing macrocyclic oligoester

IT Phosphates

Phosphonates

Sulfates

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(dispersants; dispersing nanosize

deagglomerated barium sulfates in

macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)

IT Dispersion of materials

(dispersing nanosize deagglomerated barium

sulfates in macrocyclic oligoesters by using particles containing

crystallization inhibitors and coated with

dispersants)

IT Polyethers

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(esters with phosphoric acid alkyl esters, salts,

dispersants; dispersing nanosize

deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)

IT Carboxylic acids

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(hydroxy, polycarboxylic; polyethers)

IT Polyethers

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(hydroxy-containing polycarboxylates, dispersants; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)

IT Polyesters

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PROC (Process); USES (Uses)
(hydroxy-terminated, polymer precursor; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)

IT Crystallization

(inhibitors; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)

IT Polyesters

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PROC (Process); USES (Uses)
(macrocyclic; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)

IT Carboxylic acids

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(polycarboxylic acid esters, crystallization inhibitor; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)

IT Carboxylic acids

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(polycarboxylic, salts, crystallization inhibitor; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)

IT Carboxylic acids

Sulfonic acids

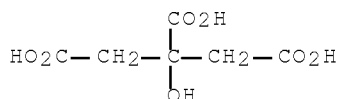
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(salts, dispersants; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)

IT 15827-60-8, DTPA-P

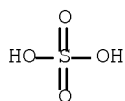
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical

- process); PROC (Process); USES (Uses)
 (DTPA-P, crystallization inhibitor; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)
- IT 34345-47-6, Polyaspartic acid sodium salt
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (Devitec PAA, crystallization inhibitor; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)
- IT 9003-04-7, Tego Dispers 715W
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (Dispex N 40, Tego Dispers 715W, Hydropalat N, Sokalan PA 20, crystallization inhibitor; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)
- IT 2809-21-4
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (HEDP, crystallization inhibitor; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)
- IT 67-43-6, Diethylenetriaminepentaacetic acid 77-92-9, Citric acid, uses 98-11-3D, Benzenesulfonic acid, alkyl derivs., salts 150-39-0, HEDTA 6915-15-7, Malic acid 25087-26-7, Polymethacrylic acid 37406-24-9, Baypure CX 100 916135-05-2, Citritex 85 916135-11-0, SKW 4334HV 916135-14-3, VP 4334-8L
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (crystallization inhibitor; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)
- IT 7664-38-2D, Phosphoric acid, alkyl/polyether esters, salts 853998-45-5, Melpers 0030 916135-15-4, Disperbyk 102
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (dispersant; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)
- IT 7727-43-7P, Barium sulfate
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process); USES (Uses)
 (dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)
- IT 110-63-4, 1,4-Butanediol, reactions
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (oligoester precursor; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization

IT inhibitors and coated with dispersants)
 77-92-9, Citric acid, uses
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (crystallization inhibitor; dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)
 RN 77-92-9 HCAPLUS
 CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



IT 7727-43-7P, Barium sulfate
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process); USES (Uses)
 (dispersing nanosize deagglomerated barium sulfates in macrocyclic oligoesters by using particles containing crystallization inhibitors and coated with dispersants)
 RN 7727-43-7 HCAPLUS
 CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L126 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2011 ACS on STN
 ACCESSION NUMBER: 2006:1283511 HCAPLUS Full-text
 DOCUMENT NUMBER: 146:28435

TITLE: Dispersing deagglomerated barium sulfates in plastics or plastic precursors by coating the particles
 INVENTOR(S): Hardinghaus, Ferdinand; Glende, David-Christopher; Park, Jai-Won; Koehler, Karl

PATENT ASSIGNEE(S): Solvay Infra Bad Hoenningen G.m.b.H., Germany
 SOURCE: Ger. Offen., 13pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 102005025719	A1	20061207	DE 2005-102005025719	20050604
WO 2006131500	A1	20061214	WO 2006-EP62866	20060602
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1891166	A1	20080227	EP 2006-763487	20060602
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2008542492	T	20081127	JP 2008-514120	20060602
KR 2008018247	A	20080227	KR 2008-7000173	20080103
US 20080312362	A1	20081218	US 2008-916408	20080708
PRIORITY APPLN. INFO.:			DE 2005-102005025719A	20050604
			WO 2006-EP62866	W 20060602

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

ED Entered STN: 08 Dec 2006

AB Deagglomerated BaSO₄ particles of size <0.5 µm are dispersed in polymers or polymer precursors such as polyols and diisocyanates by dispersing particulate mixts. containing BaSO₄ and crystallization inhibitors coated with dispersants in solvents, deagglomerating, contacting this dispersion with the polymers or polymer precursors, and evaporating the solvent.

IPCI C08J0003-20 [I,A]; B01J0013-04 [I,A]; B01F0017-52 [I,A]; C08K0009-04 [I,A]; C08K0009-00 [I,C*]; C08K0003-30 [I,A]; C08K0003-00 [I,C*]; C08L0075-08 [I,A]; C08L0075-00 [I,C*]; C09C0001-02 [I,A]; C09C0003-08 [I,A]; C09C0003-10 [I,A]; C01F0011-46 [I,A]; C01F0011-00 [I,C*]
IPCR C08J0003-20 [I,C]; C08J0003-20 [I,A]; B01F0017-52 [I,C]; B01F0017-52 [I,A]; B01J0013-04 [I,C]; B01J0013-04 [I,A]; C01F0011-00 [I,C]; C01F0011-46 [I,A]; C08K0003-00 [I,C]; C08K0003-30 [I,A]; C08K0009-00 [I,C]; C08K0009-04 [I,A]; C08L0075-00 [I,C]; C08L0075-08 [I,A]; C09C0001-02 [I,C]; C09C0001-02 [I,A]; C09C0003-08 [I,C]; C09C0003-08 [I,A]; C09C0003-10 [I,C]; C09C0003-10 [I,A]

CC 37-6 (Plastics Manufacture and Processing)

ST dispersing deagglomerated barium sulfate polymer; dispersant coated deagglomerated barium sulfate crystn inhibitor mixt; crystn inhibitor barium sulfate dispersing polymer; polyol dispersion deagglomerated barium sulfate; diisocyanate dispersion deagglomerated barium sulfate

IT Agglomeration
(de-; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

IT Phosphates
Phosphonates

Sulfates

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(dispersants; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

IT Dispersion of materials

(dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

IT Polyurethanes

RL: MSC (Miscellaneous)

(dispersing deagglomerated barium sulfates in polyols for polyurethanes by using particles containing crystallization inhibitors and coated with dispersants)

IT Polyethers

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(hydroxy-containing polycarboxylates, dispersants; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

IT Polyesters

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PROC (Process); USES (Uses)

(hydroxy-terminated; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

IT Crystallization

(inhibitors; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

IT Carboxylic acids

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(polycarboxylic acid esters, crystallization inhibitor; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

IT Carboxylic acids

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(polycarboxylic, salts, crystallization inhibitor; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

IT Isocyanates

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(polyfunctional, polymer precursor; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization

- inhibitors and coated with dispersants)
- IT Alcohols
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (polyhydric; dispersing deagglomerated barium sulfates in polyols for polyurethanes by using particles containing crystallization inhibitors and coated with dispersants)
- IT Carboxylic acids
Sulfonic acids
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (salts, dispersants; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)
- IT 15827-60-8
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (DTPA-P, crystallization inhibitor; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)
- IT 34345-47-6, Polyaspartic acid sodium salt
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (Devitec PAA, crystallization inhibitor; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)
- IT 9003-04-7
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (Dispex N 40, Dispers 715W, Hydropalat N, Sokalan PA 20, crystallization inhibitor; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)
- IT 3794-83-0
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (HEDP, crystallization inhibitor; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)
- IT 67-43-6, Diethylenetriaminepentaacetic acid 77-92-9, Citric acid, uses 98-11-3D, Benzenesulfonic acid, alkyl derivs., salts 150-39-0, HEDTA 6915-15-7, Malic acid 25087-26-7, Polymethacrylic acid 37406-24-9, Baypure CX 100 916135-05-2, Citritex 85 916135-11-0, SKW 4334HV 916135-14-3, VP 4334-8L
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (crystallization inhibitor; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)
- IT 853998-45-5, Melpers 0030
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (dispersant; dispersing deagglomerated

barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

IT 7727-43-7P, Barium sulfate

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process); USES (Uses)

(dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

IT 916135-27-8, Lupraphen 8100

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PROC (Process); USES (Uses)

(dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

IT 67-63-0, Isopropanol, uses

RL: NUU (Other use, unclassified); USES (Uses)

(solvent; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

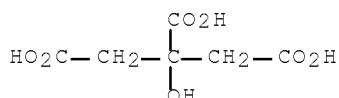
IT 77-92-9, Citric acid, uses

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(crystallization inhibitor; dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (CA INDEX NAME)



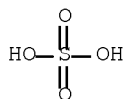
IT 7727-43-7P, Barium sulfate

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process); USES (Uses)

(dispersing deagglomerated barium sulfates in plastics or plastic precursors by using particles containing crystallization inhibitors and coated with dispersants)

RN 7727-43-7 HCAPLUS

CN Sulfuric acid, barium salt (1:1) (CA INDEX NAME)



● Ba

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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, IFICDB' - CONTINUE? (Y)/N:y

L126 ANSWER 5 OF 7 IFICDB COPYRIGHT 2011 IFI on STN

AN 05300415 IFIPAT;IFIUDB;IFICDB Full-text
 TITLE: EPOXY RESIN WITH INCREASED FLEXURAL IMPACT STRENGTH
 AND BREAKING EXTENSION; COMPOSITES;
CURED EPOXY RESIN HAVING
DEAGGLOMERATED BARIUM
SULFATE DISPERSED WITHIN AND A
 CRYSTALLIZATION INHIBITOR AND A DISPERSANT
 INVENTOR(S): Glende; Christopher David, Goettingen, DE
 Hardinghaus; Ferdinand, Bad Honnef, DE
 Koehler; Karl, Diekhof, DE
 Park; Won Jai, Goettingen, DE
 Stahl; Rainer, Arnsberg, DE
 PATENT ASSIGNEE(S): Solvay Infra Bad Hoenningen GmbH, Hannover, DE
 PRIMARY EXAMINER: Feely, Michael J
 AGENT: Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P.

	NUMBER	PK	DATE
PATENT INFORMATION:	US 7811668	B2	20101012
	US 20070232725	A1	20071004
	WO 2005054357		20050616
APPLICATION INFORMATION:	US 2004-581684		20041201 (10)
	WO 2004-EP13613		20041201
			20070423 PCT 371 date
			20070423 PCT 102(e) date
EXPIRATION DATE:	1 Dec 2024		

	NUMBER	DATE
PRIORITY APPLN. INFO.:	DE 2003-10357115	20031206
FAMILY INFORMATION:	US 7811668	20101012
DOCUMENT TYPE:	Utility	
	Granted Patent - Utility, with Pre-Grant Publication	
FILE SEGMENT:	CHEMICAL	
	GRANTED	
ENTRY DATE:	Entered STN: 13 Oct 2010	
	Last Updated on STN: 21 Dec 2010	

NOTE: Subject to any Disclaimer, the term of this patent is
 extended or adjusted under 35 USC 154(b) by 840 days.

NUMBER OF CLAIMS: 20
ED Entered STN: 13 Oct 2010
Last Updated on STN: 21 Dec 2010
AB Epoxy resins comprising deagglomerated barium sulphate with an average particle size of less than 0.5 μ m feature increased flexural impact strength and breaking extension. Epoxy resins of this kind can be used as, for example, composite material or binders in watercraft construction, in wind turbines, in pipes, for containers or in aircraft construction, in particular in composite materials comprising glass fibre or carbon fibre.
NCL NCLM: 428413000
NCLS: 428297400; 428323000; 428328000; 428332000; 523440000; 523442000; 523457000; 523459000
IPC [08]
IPCI B32B0027-04
B32B0027-20; B32B0027-38; C08K0003-10; C08K0003-30; C08L0063-00
IPCR B32B0027-04 [I,A]
B32B0027-20 [I,A]; B32B0027-38 [I,A]; C08K0003-10 [I,A];
C08K0003-30 [I,A]; C08L0063-00 [I,A]
ARTU 176
CT General Terms: ACRYLIC HOMOPOLYMERS/OTHER/ 00062-10; AIRCRAFT 00134; BINDERS 00599; BOATS 00662; BREAKING 00710; CONTAINERS 01268; CRYSTAL GROWTH INHIBITORS 01401; CURING 01420; DEAGGLOMERATION 01491; DISPERSANTS 01732; DISPERSION 01735; EPOXY RESINS 02010-10 20 30; EXTENSIBILITY 02081; FLEXIBILITY 02230; GLASS FIBERS 02455-10; HARDENING 02571; IMPACT STRENGTH 02828; PIPES 04088; POLYETHERS 04196-11; REINFORCEMENT 04626; TURBINES 05756; WINDS 06053; CTD/PROCESS/ 06232; CTD/M&D/OTHER-INCLUDES DOSAGE FORMS, MEDICAL EQUIPMENT/ 06233; POLYSODIUM ACRYLATE 07480-10; ANIONIC POLYMERS 07485-10; COMPOSITES 08062; CARBON FIBERS 08212-10; STABILITY/CT/ 10019; PURIFICATION OR SEPARATION/CT/ 10020; PACKAGES, PACKAGING/CT/ 10026; POLYMERIZATION REACTIONS/CT/ 10027; CTD/C/MULTICOMP-POLYMER, MONOMER, CURING AGENT/ 10046; CTD/P/CHEMICAL REACTION, SYNTHESIS, CROSSLINKING/ 10056; ADDITION POLYMERS/CT/ 10200; CONDENSATION POLYMERS/CT/ 10201; POLYMER DESCRIPTORS/CT/ 10204; CTD/COMPOSITION/ 21450
Compound Terms: CITRIC ACID 50763-10; BARIUM SULFATE, BASO4 52356-10; ACRYLIC ACID, SODIUM SALT 63803-41
L126 ANSWER 6 OF 7 IFICDB COPYRIGHT 2011 IFI on STN
AN 11582610 IFIPAT;IFIUDB;IFICDB Full-text
TITLE: Epoxy Resin Having Improved Flexural Impact Strength and Elongation At Rupture
INVENTOR(S): Stahl; Rainer, Arnsberg, DE
Park; Jai-Won, Gottingen, DE
Hardinghaus; Ferdinand, Bad Honnef, DE
Glende; David-Christopher, Gottingen, DE
Kohler; Karl, Diekhofen, DE
PATENT ASSIGNEE(S): SOLVAY INFRA BAD HOENNINGEN GMBH, Hans-Boeckler-Allee 20, Hannover, D-30173, DE
AGENT: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940 DUKE STREET, ALEXANDRIA, VA, 22314, US

	NUMBER	PK	DATE
PATENT INFORMATION:	US 20070232725	A1	20071004
APPLICATION INFORMATION:	US 2004-581684		20041201 (10)
	WO 2004-EP13613		20041201
			20070423 PCT 371 date
			20070423 PCT 102(e) date

NUMBER

DATE

10/596,007

PRIORITY APPLN. INFO.: DE 2003-10357115 20031206
 FAMILY INFORMATION: US 20070232725 20071004
 DOCUMENT TYPE: Utility
 Patent Application - First Publication
 FILE SEGMENT: CHEMICAL
 APPLICATION
 ENTRY DATE: Entered STN: 8 Oct 2007
 Last Updated on STN: 9 Nov 2007

NUMBER OF CLAIMS: 21

ED Entered STN: 8 Oct 2007
 Last Updated on STN: 9 Nov 2007

AB Epoxy resins comprising deagglomerated barium sulphate with an average particle size of less than 0.5 μ m feature increased flexural impact strength and breaking extension. Epoxy resins of this kind can be used as, for example, composite material or binders in watercraft construction, in wind turbines, in pipes, for containers or in aircraft construction, in particular in composite materials comprising glass fibre or carbon fibre.

NCL NCLM: 523205000

IPC [08]
 IPCI C08K0009-00
 C08K0003-30; C09C0001-02
 IPCR C08K0009-00 [I,A]
 C08K0003-30 [I,A]; C09C0001-02 [I,A]

L126 ANSWER 7 OF 7 IFICDB COPYRIGHT 2011 IFI on STN

AN 11517453 IFIPAT;IFIUDB;IFICDB Full-text

TITLE: Hardenable materials, containing
 disagglomerated barium sulfate,
 method for production and use thereof

INVENTOR(S): Poppe; Andreas, Sendenhorst, DE
 Mikolajetz; Dunja, Ascheberg, DE
 Westhoff; Elke, Steinfurt, DE
 Hardinghaus; Ferdinand, Bad Honningen, DE
 Park; Jai-Won, Gottingen, DE
 Kohler; Karl, Diekhofen, DE
 Stahl; Rainer, Arnsberg, DE
 Glende; David Christopher, Eisebeck, DE

PATENT ASSIGNEE(S): BASF COATINGS AG, GLASURITSTR. 1, 48165 MÜNSTER,
 48165, DE

AGENT: BASF CORPORATION;Patent Department, 1609 BIDDLE
 AVENUE, MAIN BUILDING, WYANDOTTE, MI, 48192, US

	NUMBER	PK	DATE
PATENT INFORMATION:	US 20070167535	A1	20070719
APPLICATION INFORMATION:	US 2004-596007		20041111 (10)
	WO 2004-EP53031		20041111
			20070130 PCT 371 date
			20070130 PCT 102(e) date

	NUMBER	DATE
PRIORITY APPLN. INFO.:	DE 2003-10357114	20031206
	DE 2004-102004010201	20040302
FAMILY INFORMATION:	US 20070167535	20070719
DOCUMENT TYPE:	Utility	
	Patent Application - First Publication	
FILE SEGMENT:	CHEMICAL	

10/596,007

ENTRY DATE: APPLICATION
Entered STN: 20 Jul 2007
Last Updated on STN: 16 Aug 2007

NUMBER OF CLAIMS: 34

ED Entered STN: 20 Jul 2007
Last Updated on STN: 16 Aug 2007

AB Curable compositions comprising deagglomerated barium sulfate containing at least one dispersant and at least one crystallization inhibitor and having a primary particle size $<0.5 \mu\text{m}$, preferably $<0.1 \mu\text{m}$, in particular $<30 \text{ nm}$, and their use.

NCL NCLM: 522071000
NCLS: 977902000

IPC [08]
IPCI B29C0071-04
IPCR B29C0071-00 [I,C]
B29C0071-04 [I,A]; C09C0001-02 [I,C*]; C09C0001-02 [I,A];
C09D0005-02 [I,C*]; C09D0005-02 [I,A]; C09D0005-32 [I,C*];
C09D0005-32 [I,A]; C09D0007-12 [I,C*]; C09D0007-12 [I,A]

=> file stnguide

FILE 'STNGUIDE' ENTERED AT 11:10:12 ON 12 JAN 2011
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jan 7, 2011 (20110107/UP).

=> d his ful

(FILE 'HOME' ENTERED AT 08:49:47 ON 12 JAN 2011)

FILE 'STNGUIDE' ENTERED AT 08:49:50 ON 12 JAN 2011

FILE 'ZCAPLUS' ENTERED AT 08:50:00 ON 12 JAN 2011
E US2007-596007/APPS

FILE 'HCAPLUS' ENTERED AT 08:50:16 ON 12 JAN 2011
L1 1 SEA SPE=ON ABB=ON PLU=ON US2007-596007/APPS
D SCAN

FILE 'STNGUIDE' ENTERED AT 08:50:26 ON 12 JAN 2011

FILE 'WPIX' ENTERED AT 08:50:51 ON 12 JAN 2011
L2 1 SEA SPE=ON ABB=ON PLU=ON US2007-596007/APPS
D IALL CODE

FILE 'STNGUIDE' ENTERED AT 08:51:00 ON 12 JAN 2011

FILE 'HCAPLUS' ENTERED AT 08:51:39 ON 12 JAN 2011
SELE L1 1- RN

FILE 'REGISTRY' ENTERED AT 08:51:45 ON 12 JAN 2011
L3 6 SEA SPE=ON ABB=ON PLU=ON (36465-90-4/BI OR 56486-71-6/BI OR
77-92-9/BI OR 7727-43-7/BI OR 853998-45-5/BI OR 9003-01-4/BI)
D SCAN

FILE 'STNGUIDE' ENTERED AT 08:52:07 ON 12 JAN 2011

FILE 'REGISTRY' ENTERED AT 08:53:09 ON 12 JAN 2011
L4 1 SEA SPE=ON ABB=ON PLU=ON 7727-43-7/RN
D SCAN
L5 37 SEA SPE=ON ABB=ON PLU=ON 7727-43-7/RN,CRN
L6 9673 SEA SPE=ON ABB=ON PLU=ON 77-92-9/RN,CRN
L7 1 SEA SPE=ON ABB=ON PLU=ON 77-92-9/RN
L8 1 SEA SPE=ON ABB=ON PLU=ON 56486-71-6/RN
D SCAN

FILE 'STNGUIDE' ENTERED AT 08:56:01 ON 12 JAN 2011

FILE 'LREGISTRY' ENTERED AT 08:58:04 ON 12 JAN 2011
L9 STR
L10 STR

FILE 'REGISTRY' ENTERED AT 08:59:01 ON 12 JAN 2011
L11 50 SEA SSS SAM (L9 AND L10)
D QUE STAT
D SCAN L8

L12 69317 SEA SSS FUL (L9 AND L10)
SAVE TEMP L12 SCH598PSET1/A
D SAVED

L13 0 SEA SPE=ON ABB=ON PLU=ON L8 NOT L12
L14 7138 SEA SPE=ON ABB=ON PLU=ON L12 AND SI/ELS
SAVE TEMP L14 SCH007RSET1/A

FILE 'STNGUIDE' ENTERED AT 09:02:09 ON 12 JAN 2011
D SAVED

10/596,007

DEL SCH598PSET1/A

FILE 'REGISTRY' ENTERED AT 09:02:49 ON 12 JAN 2011
SAVE TEMP L12 SCH007PSET1/A

FILE 'STNGUIDE' ENTERED AT 09:03:12 ON 12 JAN 2011
D SAVED

FILE 'ZCAPLUS' ENTERED AT 09:05:10 ON 12 JAN 2011

L15 QUE SPE=ON ABB=ON PLU=ON POPPE, A?/AU,AUTH
L16 QUE SPE=ON ABB=ON PLU=ON MIKOLAJETZ, D?/AU,AUTH
L17 QUE SPE=ON ABB=ON PLU=ON WESTHOFF, E?/AU,AUTH
L18 QUE SPE=ON ABB=ON PLU=ON HARDINGHAUS, F?/AU,AUTH
L19 QUE SPE=ON ABB=ON PLU=ON PARK, J?/AU,AUTH
L20 QUE SPE=ON ABB=ON PLU=ON KOHLER, K?/AU,AUTH
L21 QUE SPE=ON ABB=ON PLU=ON STAHL, R?/AU,AUTH
L22 QUE SPE=ON ABB=ON PLU=ON GLENDE, D?/AU,AUTH

FILE 'HCAPLUS' ENTERED AT 09:06:52 ON 12 JAN 2011

L*** DEL 1 S L15-L22 AND L1
D BIB

FILE 'ZCAPLUS' ENTERED AT 09:07:05 ON 12 JAN 2011

L23 QUE SPE=ON ABB=ON PLU=ON KOEHLER, K?/AU,AUTH

FILE 'HCAPLUS' ENTERED AT 09:07:29 ON 12 JAN 2011

L24 1 SEA SPE=ON ABB=ON PLU=ON (L15 OR L16 OR L17 OR L18 OR L19
OR L20 OR L21 OR L22 OR L23) AND L1
D BIB

FILE 'STNGUIDE' ENTERED AT 09:07:41 ON 12 JAN 2011

FILE 'ZCAPLUS' ENTERED AT 09:08:48 ON 12 JAN 2011

L25 QUE SPE=ON ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR
MY<2005 OR REVIEW/DT
L26 QUE SPE=ON ABB=ON PLU=ON COMBIN? OR COMBN OR MIXTURE OR
ADMIX? OR MIXED OR MIXING OR BLEND? OR MIXT?
L27 QUE SPE=ON ABB=ON PLU=ON COMPOSITION OR CMPSN OR COMPOS?
L28 QUE SPE=ON ABB=ON PLU=ON FORMULAT?
L29 QUE SPE=ON ABB=ON PLU=ON CURE OR CURING OR CURED
L30 QUE SPE=ON ABB=ON PLU=ON CURABLE
L31 QUE SPE=ON ABB=ON PLU=ON BINDER
L32 QUE SPE=ON ABB=ON PLU=ON (BARIUM(1W)(SULFATE OR SULPHATE))
OR BASO4
L33 QUE SPE=ON ABB=ON PLU=ON DEAGGLOMERAT? OR (DE(1W)AGGLOMERAT?
)
L34 QUE SPE=ON ABB=ON PLU=ON DISPERS?
L35 QUE SPE=ON ABB=ON PLU=ON AGGLOMER? OR REAGGLOMER?
L36 QUE SPE=ON ABB=ON PLU=ON CRYST?
L37 QUE SPE=ON ABB=ON PLU=ON ANTAGON? OR INHIBIT? OR PROHIBIT?
OR PREVENT? OR DIMINISH? OR REDUC? OR IMPED? OR DEPRESS? OR
SUPPRESS? OR REPRESS? OR OBSTRUCT? OR RESTRICT? OR TERMINAT?
OR BLOCK? OR STOP? OR RETARD? OR SLOW? OR DELAY? OR LIMIT? OR
DECREAS? OR LOWER? OR LESSEN? OR MINIMIZ? OR MINIMIS? OR
DISRUPT?
L38 QUE SPE=ON ABB=ON PLU=ON IMPAIR? OR HINDER?
L39 QUE SPE=ON ABB=ON PLU=ON CARBOXYLIC
L40 QUE SPE=ON ABB=ON PLU=ON CITRIC
L41 QUE SPE=ON ABB=ON PLU=ON PHOSPHORIC OR PHOSPHINIC
L42 QUE SPE=ON ABB=ON PLU=ON SULFINIC OR SULPHINIC OR SULFONIC

10/596,007

OR SULPHONIC
L43 QUE SPE=ON ABB=ON PLU=ON EPOXIDE
L44 QUE SPE=ON ABB=ON PLU=ON ?SILAN? OR ORAGANOSILAN? OR
CARBOSILAN? OR ?SILYL?
L45 QUE SPE=ON ABB=ON PLU=ON ELECTROSTATIC?
L46 QUE SPE=ON ABB=ON PLU=ON OSMOTIC?
L47 QUE SPE=ON ABB=ON PLU=ON ?CATALY?
L48 QUE SPE=ON ABB=ON PLU=ON RADIATION
L49 QUE SPE=ON ABB=ON PLU=ON BLOCK? OR SHIELD?
L50 QUE SPE=ON ABB=ON PLU=ON PHOSPHONIC
L51 QUE SPE=ON ABB=ON PLU=ON CRYSTALLIZATION+PFT, OLD, NEW/CT
L52 QUE SPE=ON ABB=ON PLU=ON "DISPERSING AGENTS"+PFT, OLD, NEW, NT/
CT
L53 QUE SPE=ON ABB=ON PLU=ON "CARBOXYLIC ACIDS"+PFT, OLD, NEW/CT

FILE 'HCAPLUS' ENTERED AT 09:20:06 ON 12 JAN 2011

L54 3047 SEA SPE=ON ABB=ON PLU=ON L14
L55 17474 SEA SPE=ON ABB=ON PLU=ON L4
L56 2 SEA SPE=ON ABB=ON PLU=ON L54 AND L55
L57 2 SEA SPE=ON ABB=ON PLU=ON L54 AND L32
L58 9756 SEA SPE=ON ABB=ON PLU=ON L55 AND (L26 OR L27 OR L28)
L59 2082 SEA SPE=ON ABB=ON PLU=ON L54 AND (L26 OR L27 OR L28)
L60 94 SEA SPE=ON ABB=ON PLU=ON L58 AND (L33 OR L35)
L61 13 SEA SPE=ON ABB=ON PLU=ON L60 AND L31
L62 31 SEA SPE=ON ABB=ON PLU=ON L60 AND (L34 OR L52)
L63 6 SEA SPE=ON ABB=ON PLU=ON L61 AND L62
L64 89493 SEA SPE=ON ABB=ON PLU=ON L7
L65 6 SEA SPE=ON ABB=ON PLU=ON L60 AND L64
L66 127 SEA SPE=ON ABB=ON PLU=ON L58 AND L64
L67 24 SEA SPE=ON ABB=ON PLU=ON L66 AND (L34 OR L52)
L68 38 SEA SPE=ON ABB=ON PLU=ON (L56 OR L57) OR L61 OR L63 OR L65
OR L67
L69 38 SEA SPE=ON ABB=ON PLU=ON L68 AND ((L26 OR L27 OR L28 OR L29
OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L38
OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR L46 OR L47
OR L48 OR L49 OR L50) OR (L51 OR L52 OR L53))
L*** DEL 38 S L68-69
L70 38 SEA SPE=ON ABB=ON PLU=ON (L68 OR L69)
L71 4 SEA SPE=ON ABB=ON PLU=ON L70 AND (L15 OR L16 OR L17 OR L18
OR L19 OR L20 OR L21 OR L22 OR L23)
L72 0 SEA SPE=ON ABB=ON PLU=ON L1 NOT L71
L73 4 SEA SPE=ON ABB=ON PLU=ON (L71 OR L72)
L74 34 SEA SPE=ON ABB=ON PLU=ON L70 NOT L73
L75 1 SEA SPE=ON ABB=ON PLU=ON L57 AND L74
D SCAN TI HIT
L76 34 SEA SPE=ON ABB=ON PLU=ON L74 AND (L4 OR L32)

FILE 'STNGUIDE' ENTERED AT 09:28:38 ON 12 JAN 2011

FILE 'STNGUIDE' ENTERED AT 09:53:36 ON 12 JAN 2011

FILE 'WPIX' ENTERED AT 09:53:48 ON 12 JAN 2011

L77 QUE SPE=ON ABB=ON PLU=ON (G1558 OR G1581)/PLE
L78 QUE SPE=ON ABB=ON PLU=ON (R05257 OR F83 OR F84 OR F85 OR
F86 OR F87)/PLE
L79 QUE SPE=ON ABB=ON PLU=ON G0260/PLE
SELE L2 1- DCR
L80 6 SEA SPE=ON ABB=ON PLU=ON (88364-U/AN.S OR DCR-1098471/AN.S
OR DCR-1098472/AN.S OR DCR-129824/AN.S OR DCR-88364/AN.S OR
DCR-89553/AN.S OR DCR-96751/AN.S OR 1098471-K/AN.S OR 1098471-M

10/596,007

/AN.S OR 1098472-K/AN.S OR 1098472-M/AN.S OR 129824-K/AN.S OR
129824-M/AN.S OR 132147-K/AN.S OR 132147-M/AN.S OR 742649-K/AN.
S OR 742649-M/AN.S OR 88364-K/AN.S OR 88364-M/AN.S OR 89553-K/A
N.S OR 89553-M/AN.S OR 96751-K/AN.S OR 96751-M/AN.S)

D TRI 1-6

D IDE 6

L81 1 SEA SPE=ON ABB=ON PLU=ON 88364/DCSE
L82 8978 SEA SPE=ON ABB=ON PLU=ON L81/DCR OR DCR-88364/DCR OR
R01739/DCN
L83 5950 SEA SPE=ON ABB=ON PLU=ON 1739/DRN
L84 9098 SEA SPE=ON ABB=ON PLU=ON (L82 OR L83)
L85 1736 SEA SPE=ON ABB=ON PLU=ON L77 (L) L78(L) L79
L86 25 SEA SPE=ON ABB=ON PLU=ON L84 AND L85
L87 25 SEA SPE=ON ABB=ON PLU=ON L86 AND (L26 OR L27 OR L28)
L88 25 SEA SPE=ON ABB=ON PLU=ON (L86 OR L87)
L89 0 SEA SPE=ON ABB=ON PLU=ON L88 AND (L33 OR L35)
L90 2 SEA SPE=ON ABB=ON PLU=ON L88 AND L31
L91 11 SEA SPE=ON ABB=ON PLU=ON L88 AND L34
D TRI L88 1-5
L92 6 SEA SPE=ON ABB=ON PLU=ON L88 AND (L29 OR L30)
L93 25 SEA SPE=ON ABB=ON PLU=ON (L88 OR L89 OR L90 OR L91 OR L92)
L94 25 SEA SPE=ON ABB=ON PLU=ON L93 AND (L26 OR L27 OR L28 OR L29
OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L38
OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR L46 OR L47
OR L48 OR L49 OR L50)
L95 25 SEA SPE=ON ABB=ON PLU=ON (L93 OR L94)
L96 0 SEA SPE=ON ABB=ON PLU=ON L95 AND (L15 OR L16 OR L17 OR L18
OR L19 OR L20 OR L21 OR L22 OR L23)
L97 4623 SEA SPE=ON ABB=ON PLU=ON L77 AND L78 AND L79
L98 54 SEA SPE=ON ABB=ON PLU=ON L84 AND L97
L99 53 SEA SPE=ON ABB=ON PLU=ON L98 AND (L26 OR L27 OR L28)
L100 20 SEA SPE=ON ABB=ON PLU=ON L99 AND ((L29 OR L30) OR HARDEN?/BI
X,BIEX,ABEX,TT)
D TRI 1-3
L101 20 SEA SPE=ON ABB=ON PLU=ON L100 AND (L26 OR L27 OR L28 OR L29
OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L38
OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR L46 OR L47
OR L48 OR L49 OR L50)
L102 0 SEA SPE=ON ABB=ON PLU=ON L101 AND (L15 OR L16 OR L17 OR L18
OR L19 OR L20 OR L21 OR L22 OR L23)
L103 20 SEA SPE=ON ABB=ON PLU=ON L101 NOT L102
D TRI 17-20

FILE 'STNGUIDE' ENTERED AT 10:08:56 ON 12 JAN 2011

FILE 'STNGUIDE' ENTERED AT 10:45:34 ON 12 JAN 2011

FILE 'REGISTRY' ENTERED AT 10:45:44 ON 12 JAN 2011

L104 16 SEA SPE=ON ABB=ON PLU=ON L14 AND (MEDLINE OR BIOSIS OR
EMBASE OR CABA OR AGRICOLA OR IFICDB OR DRUGU OR VETU)/LC

FILE 'MEDLINE, BIOSIS, EMBASE, CABA, AGRICOLA, IFICDB, DRUGU, VETU'
ENTERED AT 10:46:31 ON 12 JAN 2011

L105 8 SEA SPE=ON ABB=ON PLU=ON L104
L106 15396 SEA SPE=ON ABB=ON PLU=ON L4
L107 0 SEA SPE=ON ABB=ON PLU=ON L105 AND L106
L108 1356 SEA SPE=ON ABB=ON PLU=ON (L106 OR L32) AND (L26 OR L27 OR
L28) AND L34
L109 67 SEA SPE=ON ABB=ON PLU=ON L108 AND (L33 OR L35)
L110 3 SEA SPE=ON ABB=ON PLU=ON L109 AND L31 AND ((L29 OR L30) OR

10/596,007

HARDEN?)

D SCAN

L111 3 SEA SPE=ON ABB=ON PLU=ON L110 AND (L15 OR L16 OR L17 OR L18
OR L19 OR L20 OR L21 OR L22 OR L23)
L112 0 SEA SPE=ON ABB=ON PLU=ON L110 NOT L111

FILE 'STNGUIDE' ENTERED AT 10:49:20 ON 12 JAN 2011

FILE 'HCAPLUS, WPIX, PASCAL, JAPIO, INSPEC, COMPENDEX, APOLLIT, RAPRA,
CEABA-VTB, BIOENG, BIOTECHDS, DRUGB, VETB, LIFESCI, SCISEARCH, CONFSCI,
DISSABS, RDISCLOSURE' ENTERED AT 10:51:21 ON 12 JAN 2011

L113 29647 SEA SPE=ON ABB=ON PLU=ON L32 AND (L26 OR L27 OR L28)
L114 774 SEA SPE=ON ABB=ON PLU=ON L113 AND L31 AND L34
L115 14 SEA SPE=ON ABB=ON PLU=ON L114 AND (L33 OR L35)
L116 5 SEA SPE=ON ABB=ON PLU=ON L115 AND ((L29 OR L30) OR HARDEN?)

L117 5 SEA SPE=ON ABB=ON PLU=ON L116 AND (L26 OR L27 OR L28 OR L29
OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L38
OR L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR L46 OR L47
OR L48 OR L49 OR L50)
L118 5 SEA SPE=ON ABB=ON PLU=ON (L116 OR L117)
L119 2 SEA SPE=ON ABB=ON PLU=ON L118 AND (L15 OR L16 OR L17 OR L18
OR L19 OR L20 OR L21 OR L22 OR L23)
L120 3 SEA SPE=ON ABB=ON PLU=ON L118 NOT L119
D SCAN

FILE 'STNGUIDE' ENTERED AT 11:01:47 ON 12 JAN 2011

D QUE L4
D QUE L7
D QUE L8
D QUE STAT L12
D QUE STAT L14
D QUE NOS L76
D QUE L103
D QUE NOS L112
D QUE L120

FILE 'HCAPLUS, WPIX' ENTERED AT 11:03:29 ON 12 JAN 2011

L121 55 DUP REM L76 L103 L112 L120 (2 DUPLICATES REMOVED)
ANSWERS '1-34' FROM FILE HCAPLUS
ANSWERS '35-55' FROM FILE WPIX
SAVE TEMP L121 SCH007MAIN/A

FILE 'STNGUIDE' ENTERED AT 11:03:50 ON 12 JAN 2011

FILE 'HCAPLUS, WPIX' ENTERED AT 11:04:04 ON 12 JAN 2011

D QUE L25

L*** DEL 34 S L74 AND (L4 OR L32)
L*** DEL 20 S L101 NOT L102
L*** DEL 1 S L118 NOT L119
L122 40 SEA SPE=ON ABB=ON PLU=ON L121 AND L25
L123 40 DUP REM L122 (0 DUPLICATES REMOVED)
ANSWERS '1-27' FROM FILE HCAPLUS
ANSWERS '28-40' FROM FILE WPIX

FILE 'STNGUIDE' ENTERED AT 11:04:50 ON 12 JAN 2011

FILE 'HCAPLUS, WPIX' ENTERED AT 11:04:58 ON 12 JAN 2011

D IBIB ED ABS HITIND HITSTR 1-27

10/596,007

FILE 'STNGUIDE' ENTERED AT 11:05:08 ON 12 JAN 2011

FILE 'HCAPLUS, WPIX' ENTERED AT 11:05:37 ON 12 JAN 2011
D IALL ABEQ TECH ABEX FRAGHITSTR 28-40

FILE 'STNGUIDE' ENTERED AT 11:06:25 ON 12 JAN 2011

FILE 'HCAPLUS, WPIX' ENTERED AT 11:06:48 ON 12 JAN 2011

L*** DEL 34 S L74 AND (L4 OR L32)
L*** DEL 27 S L121 AND L25
L*** DEL 20 S L101 NOT L102
L*** DEL 1 S L118 NOT L119
L*** DEL 13 S L121 AND L25
L124 15 SEA SPE=ON ABB=ON PLU=ON L121 NOT L123
L125 15 DUP REM L124 (0 DUPLICATES REMOVED)
ANSWERS '1-7' FROM FILE HCAPLUS
ANSWERS '8-15' FROM FILE WPIX

FILE 'STNGUIDE' ENTERED AT 11:07:03 ON 12 JAN 2011

FILE 'HCAPLUS, WPIX' ENTERED AT 11:07:22 ON 12 JAN 2011
D IBIB ED ABS HITIND HITSTR 1-7

FILE 'STNGUIDE' ENTERED AT 11:07:26 ON 12 JAN 2011

FILE 'HCAPLUS, WPIX' ENTERED AT 11:07:42 ON 12 JAN 2011
D IALL ABEQ TECH ABEX FRAGHITSTR 8-15

FILE 'STNGUIDE' ENTERED AT 11:07:54 ON 12 JAN 2011

D QUE NOS L73
D QUE L102
D QUE NOS L111
D QUE L119

FILE 'HCAPLUS, IFICDB, WPIX' ENTERED AT 11:08:52 ON 12 JAN 2011
L126 7 DUP REM L73 L102 L111 L119 (2 DUPLICATES REMOVED)
ANSWERS '1-4' FROM FILE HCAPLUS
ANSWERS '5-7' FROM FILE IFICDB
SAVE TEMP L126 SCH007INV/A

FILE 'STNGUIDE' ENTERED AT 11:09:13 ON 12 JAN 2011

FILE 'HCAPLUS, IFICDB' ENTERED AT 11:09:45 ON 12 JAN 2011
D IBIB ED ABS HITIND HITSTR 1-4

FILE 'STNGUIDE' ENTERED AT 11:09:46 ON 12 JAN 2011

FILE 'HCAPLUS, IFICDB' ENTERED AT 11:10:03 ON 12 JAN 2011
D IBIB ED AB INDTX 5-7

FILE 'STNGUIDE' ENTERED AT 11:10:04 ON 12 JAN 2011

FILE 'STNGUIDE' ENTERED AT 11:10:12 ON 12 JAN 2011

FILE HOME

FILE STNGUIDE
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jan 7, 2011 (20110107/UP).

FILE ZCAPLUS

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FILE COVERS 1907 - 12 Jan 2011 VOL 154 ISS 3
 FILE LAST UPDATED: 11 Jan 2011 (20110111/ED)
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2010
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2010

ZCAplus now includes complete International Patent Classification (IPC) reclassification data for the fourth quarter of 2010.

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<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE HCAPLUS

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FILE COVERS 1907 - 12 Jan 2011 VOL 154 ISS 3
 FILE LAST UPDATED: 11 Jan 2011 (20110111/ED)
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2010
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2010

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FILE WPIX

FILE LAST UPDATED: 6 JAN 2011 <20110106/UP>
 MOST RECENT UPDATE: 201102 <201102/DW>
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE
 >>> Now containing more than 1.6 million chemical structures in DCR <<<

>>> IPC, ECLA, US National Classifications and Japanese F-Terms and FI-Terms have been updated with reclassifications to end of July 2010.

No update date (UP) has been created for the reclassified documents, but they can be identified by specific update codes (see HELP CLA for details) <<<

>>> FOR THE LATEST DERWENT WORLD PATENTS INDEX (DWPI) STN USER DOCUMENTATION, PLEASE VISIT:
http://www.stn-international.com/stn_dwpi.html <<<

>>> HELP for European Patent Classifications see HELP ECLA, HELP ICO <<<

>>> For changes in DWPI see HELP CHANGE - last updated April 6, 2010 <<<

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 11 JAN 2011 HIGHEST RN 1259008-70-2

DICTIONARY FILE UPDATES: 11 JAN 2011 HIGHEST RN 1259008-70-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 26, 2010.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

FILE LREGISTRY

LREGISTRY IS A STATIC LEARNING FILE

CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

FILE MEDLINE

FILE LAST UPDATED: 11 Jan 2011 (20110111/UP). FILE COVERS 1946 TO DATE.

MEDLINE and LMEDLINE have been updated with the 2011 Medical Subject Headings (MeSH) vocabulary and tree numbers from the U.S. National Library of Medicine (NLM). Additional information is available at:

http://www.nlm.nih.gov/pubs/techbull/nd10/nd10_medline_data_changes_2011.

Activities related to the 2011 Medline reload are underway. Daily updates to Medline resumed on December 17, 2010.

This file contains CAS Registry Numbers for easy and accurate substance identification.

See HELP RANGE before carrying out any RANGE search.

FILE BIOSIS

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FILE COVERS 1926 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1926 TO DATE.

RECORDS LAST ADDED: 5 January 2011 (20110105/ED)

BIOSIS has been augmented with 1.8 million archival records from 1926 through 1968. These records have been re-indexed to match current BIOSIS indexing.

FILE EMBASE

FILE COVERAGE: EMBASE-originated material 1947 to 12 Jan 2011 (20110112/E)
Unique MEDLINE content 1948 to present

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

For further assistance, please contact your local helpdesk.

FILE CABA

FILE LAST UPDATED: 7 JAN 2011 <20110107/UP>

FILE COVERS 1973 TO DATE

<<< SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE IN
THE BASIC INDEX (/BI), ABSTRACT (/AB), AND TITLE (/TI) FIELDS >>>

<<< CABA HAS BEEN RELOADED - SEE HELP RLOAD FOR DETAILS <<<

FILE AGRICOLA

FILE COVERS 1970 TO 4 Jan 2011 (20110104/ED)

Compiled and distributed by the National Agricultural Library
of the Department of Agriculture of the United States of
America. It contains copyrighted material. All rights
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This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE IFICDB

FILE COVERS 1950 TO PATENT PUBLICATION DATE: 6 Jan 2011 (20110106/PD)
FILE LAST UPDATED: 7 Jan 2011 (20110107/ED)
HIGHEST GRANTED PATENT NUMBER: US7865966
HIGHEST APPLICATION PUBLICATION NUMBER: US20110004967
UNITERM INDEXING LAST UPDATED: 21 Dec 2010 (20101221/UP)
INDEXING CURRENT THROUGH PAT PUB DATE: 26 Oct 2010 (20101026/PD)

The IFI Patent Database (IFIPAT), IFI Comprehensive Database (IFICDB),
and IFI Uniterm Database (IFIUDB), have been reloaded on STN. Search
and display enhancements in this reload include the addition of the
DISPLAY SCAN format to help evaluate usefulness of answer sets,
indexing for more than 70,000 additional published applications, and
enhanced indexing with new terms for various green technology areas
such as biofuels and biodegradable polymers.

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The (S) proximity operator should be used to correctly link chemical uniterms with role numbers. Enter 'HELP (S)' at an arrow prompt for more information on using the (S) operator when searching this file.

FILE DRUGU

FILE LAST UPDATED: 5 JAN 2011 <20110105/UP>

>>> DERWENT DRUG FILE (SUBSCRIBER) <<<

>>> FILE COVERS 1983 TO DATE <<<

>>> THESAURUS AVAILABLE IN /CT <<<

FILE VETU

FILE LAST UPDATED: 2 JAN 2002 <20020102/UP>

FILE COVERS 1983-2001

FILE PASCAL

FILE LAST UPDATED: 11 JAN 2011 <20110111/UP>

FILE COVERS 1977 TO DATE.

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE
IN THE BASIC INDEX (/BI) FIELD <<<

FILE JAPIO

FILE LAST UPDATED: 10 JAN 2011 <20110110/UP>

MOST RECENT PUBLICATION DATE: 30 SEP 2010 <20100930/PD>

>>> GRAPHIC IMAGES AVAILABLE <<<

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION (SLART) IS AVAILABLE
IN THE BASIC INDEX (/BI) FIELD <<<

FILE INSPEC

FILE LAST UPDATED: 10 JAN 2011 <20110110/UP>

FILE COVERS 1898 TO DATE.

<<< SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN
THE ABSTRACT (/AB), BASIC INDEX (/BI) AND TITLE (/TI) FIELDS >>>

FILE COMPENDEX

FILE LAST UPDATED: 10 JAN 2011 <20110110/UP>

FILE COVERS 1970 TO DATE.

<<< SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE IN
THE BASIC INDEX (/BI), ABSTRACT (/AB), and TITLE (/TI) FIELDS >>>

FILE APOLLIT

FILE LAST UPDATED: 22 DEC 2005 <20051222/UP>

FILE COVERS 1973 TO 2005

APOLLIT IS A STATIC FILE WITH NO UPDATES

--> Use file RAPRA for up-to-date polymer information

FILE RAPRA

FILE LAST UPDATED: 10 JAN 2011 <20110110/UP>

FILE COVERS 1972 TO DATE

>>> Simultaneous left and right truncation is available in the
basic index (/BI), and in the controlled term (/CT),

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geographical term (/GT), and non-polymer term (/NPT) fields. <<<

>>> The RAPRA Classification Code is available as a PDF file
and may be downloaded free-of-charge from:
http://www.stn-international.de/rapra_classcodes.html <<<

>>> New search and display field /URL (Uniform Resource Locator)
available <<<

FILE CEABA-VTB

FILE LAST UPDATED: 17 DEC 2010 <20101217/UP>

FILE COVERS 1966 TO DATE

>>> The classification schemes are available as a PDF file
and may be downloaded free-of-charge from:
<http://www.stn-international.com/cc-de.html>
and
<http://www.stn-international.com/cc-en.html> <<<

FILE BIOENG

FILE LAST UPDATED: 5 JAN 2011 <20110105/UP>

FILE COVERS 1982 TO DATE

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN
THE BASIC INDEX <<<

FILE BIOTECHDS

FILE LAST UPDATED: 28 DEC 2010 <20101228/UP>

FILE COVERS 1982 TO DATE

>>> USE OF THIS FILE IS LIMITED TO BIOTECH SUBSCRIBERS <<<

FILE DRUGB

>>> FILE COVERS 1964 TO 1982 - CLOSED FILE <<<

FILE VETB

FILE LAST UPDATED: 25 SEP 94 <940925/UP>

FILE COVERS 1968-1982

FILE LIFESCI

FILE COVERS 1978 TO 6 Jan 2011 (20110106/ED)

FILE SCISEARCH

FILE COVERS 1974 TO 6 Jan 2011 (20110106/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

FILE CONFSCI

FILE COVERS 1973 TO 21 May 2010 (20100521/ED)

CSA has resumed updates, see NEWS FILE

FILE DISSABS

FILE COVERS 1861 TO 6 JAN 2011 (20110106/ED)

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FILE RDISCLOSURE

FILE LAST UPDATED: 12 JAN 2011 <20110112/UP>

FILE COVERS 1960 TO DATE

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION IS AVAILABLE IN THE
BASIC INDEX (/BI) AND TITLE (/TI) FIELDS <<<

>>> IMAGES ARE AVAILABLE ONLINE AND FOR EMAIL-PRINTS <<<

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